

**U.S. Department of the Interior
Bureau of Land Management**

BLM

Environmental Assessment UT-090-2005-38

October 11, 2006

Wilderness Quest Five-Year Special Recreation Permit

Location: San Juan County, UT

*Applicant: Wilderness Quest
P.O. Box 12
580 North Main Street
Monticello, UT
84535*

**U.S. Department of the Interior
Bureau of Land Management
Monticello Field Office
435 North Main
Monticello, Utah 84535
Phone: 435-587-1522
FAX: 435-587-1518**



**Wilderness Quest Five-Year Special Recreation Permit
Environmental Assessment UT-090-2005-038**

TABLE OF CONTENTS

1.0 PURPOSE & NEED.....	3
1.1 Introduction.....	3
1.2 Background.....	3
1.3 Need for the Proposed Action	4
1.4 Purpose of the Proposed Action	4
1.5 Conformance with BLM Land Use Plan(s)	4
1.6 Relationship to Statutes, Regulations, or other Plans	4
1.7 Identification of Issues.....	4
1.8 Summary	4
2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION.....	5
2.1 Introduction.....	5
2.2 Alternative A – Proposed Action	5
2.3 Alternative B – No Action.....	8
2.4 Alternative C – Mitigated Proposed Action.....	8
3.0 AFFECTED ENVIRONMENT.....	9
3.1 Introduction.....	9
3.2 General Setting	9
3.3 Critical Elements of the Human Environment and Other Resources/Issues Brought Forward for Analysis	9
3.3.1 Resource 1: Areas of Critical Environmental Concern (ACEC)	9
3.3.2 Resource 2: Cultural Resources.....	10
3.3.3 Resource 3: Native American Religious Concerns	12
3.3.4 Resource 4: Wild and Scenic Rivers.....	12
3.3.5 Resource 5: Fish and Wildlife (Including Special Status Species).....	17
3.3.6 Resource 6: Vegetation.....	19
3.3.7 Resource 7: Woodlands.....	20
3.3.8 Resource 8: Recreation.....	20
3.3.9 Resource 9: Wilderness.....	21
3.3.10 Resource 10: Wilderness Characteristics.....	22
3.3.11 Resource 11: Socioeconomics.....	22
4.0 ENVIRONMENTAL IMPACTS.....	23
4.1 Introduction.....	23
4.2 Direct and Indirect Impacts	23
4.2.1 Alternative A – Proposed Action.....	23
4.2.1.1 Areas of Critical Environmental Concern.....	23
4.2.1.2 Cultural Resources.....	23
4.2.1.3 Native American Religious Concerns.....	25
4.2.1.4 Wild and Scenic Rivers.....	25
4.2.1.5 Fish and Wildlife (including Special Status Species).....	26
4.2.1.6 Vegetation.....	28
4.2.1.7 Woodlands.....	28
4.2.1.8 Recreation.....	28
4.2.1.9 Wilderness.....	29
4.2.1.10 Wilderness Characteristics.....	29
4.2.1.11 Socio-economics.....	30
4.2.1. X Mitigation Measures.....	30
4.2.1. Y Cumulative Impacts.....	31
4.2.1. Z Monitoring and/or Compliance.....	32

4.2.2	Alternative B - No Action.....	33
4.2.2. X	Mitigation Measures.....	33
4.2.2. Y	Cumulative Impacts.....	33
4.2.2. Z	Monitoring and/or Compliance.....	34
4.2.3	Alternative C - Mitigated Proposed Action.....	35
4.2.3.1	Areas of Critical Environmental Concern.....	35
4.2.3.2	Cultural Resources.....	35
4.2.3.3	Native American Religious Concerns.....	36
4.2.3.4	Wild and Scenic Rivers.....	36
4.2.3.5	Fish and Wildlife (including Special Status Species).....	37
4.2.3.6	Vegetation.....	37
4.2.3.7	Woodlands.....	38
4.2.3.8	Recreation.....	39
4.2.3.9	Wilderness.....	39
4.2.3.10	Wilderness Characteristics.....	39
4.2.3.11	Socio-economics.....	39
4.2.3. X	Mitigation Measures.....	39
4.2.3. Y	Cumulative Impacts.....	40
4.2.3. Z	Monitoring and/or Compliance.....	40
5.0	CONSULTATION AND COORDINATION.....	41
5.1	Introduction.....	41
5.2	Persons, Groups, and Agencies Consulted.....	41
5.3	Summary of Public Participation.....	41
5.4	List of Preparers.....	41
6.0	REFERENCES, GLOSSARY AND ACRONYMS.....	42
6.1	References Cited.....	42
6.2	List of Acronyms Used in this EA.....	45
APPENDICES.....		45
APPENDIX A:	Interdisciplinary Team Analysis Record Checklist.....	46
APPENDIX B:	List of General BLM Stipulations.....	49
APPENDIX C:	List of BLM Utah Stipulations.....	51
APPENDIX D:	List of supplemental Monticello Field Office Stipulations.....	56
APPENDIX E:	Code of Federal Regulations Reference.....	58
MAPS		
MAP 1:	Proposed Action Areas of Operation (Alternative A).....	59
MAP 2:	No-Action - Current Areas of Operation (Alternative B).....	60
MAP 3:	Mitigated Proposed Action Areas of Operation (Alternative C).....	61
MAP 4:	Areas of Critical Environmental Concern.....	62
MAP 5:	Wilderness Study Areas and Areas with Wilderness Characteristics.....	63

**Wilderness Quest Five-Year Special Recreation Permit
Environmental Assessment UT-090-2005-038**

1.0 PURPOSE OF AND NEED FOR THE ACTION

1.1 Introduction:

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of Wilderness Quest's application for the issuance of a five-year Special Recreation Permit (SRP) to conduct a wilderness therapy program in the Bureau of Land Management (BLM) Monticello Field Office (MFO) Resource Area. This EA provides a site-specific analysis of potential impacts that could result from the implementation of the proposed action or alternatives to the proposed action. The EA assists the BLM in project planning and in ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions. "Significance" is defined by NEPA and is found in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI). If the decision determines that this project has "significant" impacts following the analysis of the EA, then an EIS would be prepared for the project. If not, a Decision Record may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A Decision Record, which includes a FONSI statement, documents the reasons why implementation of the selected alternative would not result in "significant" environmental impacts (effects) beyond those already addressed in the San Juan Resource Area Resource Management Plan of 1991.

1.2 Background:

In 1971, Expedition Outreach (a youth wilderness therapy program) was established in cooperation with the Idaho Department of Corrections. In 1986, the program then shifted from servicing state contracts to a non-adjudicated private pay model, in order to accommodate a growing demand for private citizens to participate and to include the whole family in the process. Shortly thereafter, Expedition Outreach relocated to southern Utah under the new name of Wilderness Conquest, so that year-round operations could commence. Wilderness Conquest was reincorporated in 1995 as Blue Mountain Family Center Inc., doing business as Wilderness Quest. In addition to the youth and young adult programs already in place, the company created a separate wilderness-based, adult chemical-dependency treatment program. In general, Wilderness Quest has been operating within resources managed by the MFO since 1988.

Wilderness Quest was sold to Gordon Birch in 2005, but will continue to operate under the same name. The new owner proposes to continue operating a wilderness therapy program on lands managed by the MFO. Currently, they are permitted to operate with up to four groups at a time, year-round, but are proposing to increase this number to seven groups at a time, year-round. Therefore, a new SRP is needed. Their proposed area of operation and seasons of use are shown on Map 1 and are described in section 2.2 of this EA. Each group would consist of eight to nine students, three to four instructors, and occasionally one therapist (14 people maximum).

On a daily basis, students would receive several hours of academic instruction from instructors in a non-developed camp setting. This activity would be primarily sedentary and occur in the morning, except during inclement weather and during emergencies. Students and instructors would then spend the remainder of the day hiking to a new camp location. Overall travel and camping methods would be conducted in accordance with Leave No Trace (LNT) low impact camping techniques, and are detailed in section 2.2.

Wilderness Quest also operates on lands managed by the Manti-La Sal National Forest, which is managed by the United States Forest Service (USFS) and in the Glen Canyon National Recreation Area (GCNRA), which is managed by the National Park Service (NPS). Typically, Wilderness Quest operates on lands managed by the USFS, depending on weather, in June, July, and August, and in the GCNRA briefly in winter (see section 2.2).

1.3 Need for the Proposed Action:

Wilderness Quest has filed an application for a five-year SRP. Per 43 CFR 2932.11 (1) in order to operate a commercial company using BLM land, the proponent needs to obtain a SRP. Wilderness Quest currently holds a five-year SRP through the MFO (expires 12/31/2009). However, because the company was recently sold to a new owner who wishes to expand the business, a new SRP is required. The current permit allows four groups to operate at one time. The new SRP application proposes to increase the number of groups from four to seven. The number of total people within each group would remain the same: eight to nine students, three to four instructors, and occasionally one therapist (14 people maximum). The current area of operation is shown on Map 2. The proposed action would expand this overall area of operation (see map 1).

1.4 Purpose of the Proposed Action:

The Federal Land Policy and Management Act (FLPMA) of 1976 mandates multiple use of public lands, including recreation use. The BLM SRP regulations (43 CFR 8370) provide for Special Recreation Permits to be issued on public lands. The purpose of the proposed action is to authorize the use of specific lands managed by the MFO (see map 1) for therapeutic rehabilitation while mitigating impacts to wildlife, vegetation and woodlands, reducing recreational user conflicts and protecting cultural resources.

1.5 Conformance with BLM Land Use Plan(s):

The proposed action and alternatives described in this EA are in conformance with the San Juan Resource Area Resource Management Plan (RMP), which was approved in March 1991 as required by the regulations (43 CFR 1610.5).

“Dispersed recreation use would be allowed throughout the San Juan Resource Area, with permits required for commercial use.”

1.6 Relationship to Statutes, Regulations, or other Plans:

The proposed action is consistent with the San Juan County Master Plan (pg. 29) July 8, 1996. “The county views recreation as an important economic commodity and opportunity”, and contends that businesses such as Wilderness Quest play a vital role in stimulating the local economy. Wilderness Quest would also be required to comply with Utah State Regulations R501-8 Outdoor Youth Programs: Regulations in effect as of March 1, 2005.

1.7. Identification of Issues:

A checklist was completed by the MFO Interdisciplinary Team in respect to the proposed action for all potentially affected resources (see appendix A). Relevant issues that could not be dismissed have been carried through analysis within this EA, and are as follows: Areas of Critical Environmental Concern, Cultural Resources, Native American Religious Concerns, Wild and Scenic Rivers, Fish and Wildlife (including Special Status Species), Vegetation, Woodlands, Recreation, Wilderness, Wilderness Characteristics, and Socio-economics.

The public was notified that the MFO would be analyzing Wilderness Quest’s proposed action, via the Electronic Notification Bulletin Board (ENBB) on June 22, 2005.

1.8 Summary:

This chapter has presented the Purpose of and Need for the proposed project, as well as the relevant issues, i.e., those elements that could be affected by the implementation of the proposed project. In order to meet the purpose and need of the proposed project in a way that resolves issues raised by field office specialists, the BLM has developed two alternatives to the proposed action, including a “No-Action” alternative and a “Mitigated Proposed Action” Alternative. Each Alternative is presented in Chapter 2. The potential environmental impacts or consequences resulting from the implementation of each alternative are then analyzed in Chapter 4 for each of the identified issues.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION:

2.1 Introduction:

Three alternatives were identified and are detailed below.

2.2 Alternative A – Applicant's Proposed Action:

Wilderness Quest, a wilderness therapy program provider based in Monticello, Utah, is requesting a five-year SRP to conduct business on lands managed by the MFO. They currently hold a five-year SRP that expires 12/31/2009. The new SRP would replace this permit and would be valid from January 1, 2007 to December 31, 2011. The new proposal would be to continue to operate in essentially the same manner as they have for the past 18 years, but would increase the overall number of groups to seven, and would increase the overall area of operation. The total area of operation is currently 687,952 acres (see map 2), but would increase to 783,926 acres (see map 1) under the proposed action.

User Days

The maximum number of user days currently permitted with four full groups would be approximately 15,000. Maximum annual user days based on seven groups of nine clients, three instructors and one therapist would equal approximately 27,000 annually. However, historically, groups have rarely reached the maximum allowable number of user days (see table below).

	2001 User Days	2002 User Days	2003 User Days	2004 User Days	2005 User Days
BLM	2739	3046	2404	3042	3716
USFS	1375	1679	907	1011	1542
NPS	85	78	68	101	131

BLM = Bureau of Land Management USFS = U.S. Forest Service NPS = National Park Service - Glen Canyon National Recreation Area

Operations

The following are proposed operation dates and locations as shown on map 1. These dates and locations are approximate, and may be adjusted in emergency situations and during inclement weather. The only other exceptions to the operating dates and areas listed below would be the in relation to the completion of service projects on BLM lands managed by the MFO.

SEASON	START DATE	END DATE
Summer	May 15	November 1
Fall (Transition Area)	October 1	December 1
Winter	November 1	May 31
Spring (Transition Area)	April 1	June 15

The Areas of operation listed above do not include the official base camp, which is located at T. 39 S, R 13 E., Section 12 (see map 1).

Wilderness Groups

This proposal is to rotate up to seven groups at any given time. Wilderness Quest is currently operating with four groups. The addition of three more groups (total of seven) would be scheduled to occur in January 2007. Groups would consist of three to four instructors, one therapist, and eight to nine students. Total group size would not exceed 14 people. Each client would be in the field an average of 60 days. Groups would hike from one unspecified destination to another, nearly every day. Each group would have a therapist in the field accompanying them each week who would conduct one-on-one interviews. Therapists would also be responsible for bringing in supplies, supervising instructors, and overseeing the educational curriculum, etc. In addition, support center personnel would deliver further supply needs to the groups. Core program standards also require that the Program Director visit the field on a weekly basis. Medical personnel are required to visit each group and perform a medical evaluation of each student once per week. Groups are typically spaced a minimum of four miles apart. However, there are times when the adolescent groups will be hiking/passing (not camping) within one mile of each other. The young adult groups would always be spaced a minimum of two miles away from the adolescent groups.

Adherence to Environmental Guidelines and Minimum Impact, “Leave No Trace” techniques would be required by each group and the support staff:

- “Leave No Trace” practices would be discussed with clients as part of every client orientation/safety briefing. Clients would be advised of the proper techniques for camping, hiking, garbage and human waste disposal, respecting wildlife, and the use of fire, as described in brochures published by the National Outdoor Leadership School (NOLS). One brochure suitable for non-winter trips is: “Leave No Trace – Outdoor Skill & Ethics – Desert and Canyon Country.”
- All garbage would be packed out. No trash or food waste would be buried. If fire danger permits, combustible trash may be burned. All non-burnable materials must be packed out to an approved sanitary disposal area.

Land Use Methods

Group Camps

All camping would be dispersed, and would consist of a maximum of 14 tarps (6’ X 8’) for shelter, sleeping pads, and sleeping bags. Students would camp within visual distance of one another (described by Wilderness Quest as a maximum of 50’ feet apart). The same campsites would not be used more than one time every two weeks during a seven month period, except in cases of inclement weather or

Drop Points

Supplies would be delivered every two weeks, throughout the year, by a maximum of five support vehicles. All water/supply drops must be placed a minimum of 200 feet from natural flowing creeks and streams, and a minimum of 600 feet from seeps, springs and developed water sources (i.e.: stock tanks, guzzlers, flowing wells, etc.). Supply vehicles (4X4 Vehicles and All-Terrain Vehicles) would be limited to travel on existing routes.

Night Hikes

Night hikes (referred to as “Independent Walk-a-bouts”) would occur every three weeks, and consist of individual students hiking after dark, on San Juan County “B/D” roads, marked by glow sticks and flour markings. The average distance for this activity is 20 miles, generally not to exceed 30 miles.

Use of Fire

Campfires would be allowed, using only dead-and-downed wood, unless a fire ban is in effect or otherwise restricted. Fires would be constructed on a “Leave No Trace” approved fire blanket.

Waste Disposal

Human

Currently, Wilderness Quest requires their clients and staff to dig “cat holes” for disposal of human waste. They are proposing to change this practice to incorporate the use of latrines at wilderness camps. Latrines would be located a minimum of 200 feet from camp in a direction opposite of the nearest water source. Each time a group arrives at a campsite, a trench latrine (24”L X 12” W X 18”D) would be dug. Catholes would be used during the day while groups are hiking. For each instance, toilet paper will be placed in small, plastic bags, which will then be placed in a re-closeable-type bag, and will finally be placed in a stuff sack (each person will have an eight day supply of disposal bags). If current fire danger restrictions permit, toilet paper will be burned at camp each night. If fire restrictions are in effect, toilet paper would be packed out.

Food

Each time a group arrives at a campsite, a sump would be dug. (6”Wide X 10”Deep) and would be covered with grass, twigs, pine needles, etc. to form a filter. Each time a person washes a pot, cup, etc. the waste water generated will be poured over the filter, which will catch the food and debris. Prior to the group leaving the campsite, the filter will be burned to ash. The ash would then be scattered with the remainder of the fire debris, or packed out if fire restrictions are in place.

Service Projects

Wilderness Quest groups currently thoroughly clean their respective camping areas. It is also common practice for them to clean up any other trash they encounter during their travels. They would continue to perform these services, as well as other service projects for the MFO, as needed. Projects may include, but are not limited to: fencing, spring development/maintenance, habitat rehabilitation, planting trees and other vegetative treatments, and general trash removal and cleanup. Service projects would be coordinated with BLM staff members on a yearly basis, in order to facilitate and complete proper NEPA documentation. Smaller service projects (trash pick-up, etc) would not require advanced notice.

Logistics

Each group of clients would operate independent of one another. Through the use of a UHF/VHF radio and satellite phone, each group would make contact with base, a minimum of two times per day. Call-in communications would include such information as: group size, location, weather reports, medical issues/concerns, visitors, etc. The needs of each group shall be met through the back-up/support center. The Wilderness Quest Emergency Response Team is currently and would continue to be prepared to deal with all field concerns/incidents.

2.3 Alternative B – No Action:

Under the No Action Alternative, the BLM would not permit the proposed increase in use by Wilderness Quest. They would continue to operate as described in section 2.1 (Proposed Action) and their current levels of use (four groups at one time) would continue to be standard operating procedure until their current permit expires on 12/31/2009. Their current area of operation (687,952 acres) would remain as depicted in map 2.

2.4 Alternative C – Mitigated Proposed Action:

Under the Mitigated Proposed Action Alternative, the BLM would approve the Wilderness Quest SRP as described in the Proposed Action (Alternative A) of this EA. However, a reduced operating area would be proposed. Furthermore, mitigation measures to reduce or eliminate impacts would be implemented to the following resources: Cultural, Fish and Wildlife (including Special Status Species), Vegetation, Woodlands, and Recreation.

The following areas of operation would not be permitted under this Alternative (see maps 1 and 3):

- (1) Mule Canyon to the eastern boundary of the Butler Wash National Historic District
- (2) Bridger Jack Mesa
- (3) Indian Creek Canyon and surrounding area, including the Shay Canyon ACEC

The following areas would require additional mitigation measures, including seasonal restrictions and closures (see map 3):

- (1) Dark Canyon (including plateau) and associated spur canyons

- Closed to winter use
- No camping in canyons
- No camping on plateau within ½ mile of canyon rim

- (2) Fable Valley

- Closed to winter use
- No firewood gathering allowed
- No camping in canyon

- (3) Beef Basin

- Closed to winter use
- No firewood gathering allowed

- (4) Horse Flats and Long Canyon Area

- Closed to winter use

The following mitigation measures would be implemented to protect cultural resources:

- (1) Portions of the overall Area of Operation would be removed or closed seasonally (See Map 3);
- (2) An adjustment of campsite frequency use would be made for cultural resource protection;
- (3) Cultural Resource Mitigation and Monitoring (including a hosted monitoring position);
 - Education
 - Avoidance
 - Training
- (4) Latrine trenches at campsites would be replaced by digging catholes;
- (5) Human waste would be removed and packed out when camps are located within ½ mile of a road.

The areas removed from operation and additional mitigation measures listed above are discussed in detail in chapter 4, section 4.2.3.

3.0 AFFECTED ENVIRONMENT:

3.1 Introduction:

Wilderness Quest is proposing to operate in the areas listed in section 2.2 (see map 1).

3.2 General Setting:

San Juan County is the largest county (in terms of acreage) in Utah, and is located in the extreme southeastern corner of the state. Federal ownership accounts for approximately 92 percent of the total land in San Juan County. Geographically, the MFO boundary is bordered by the Colorado state line on the east, the Navajo Nation on the south, the Colorado River on the west, and Moab Field Office boundary and Canyonlands National Park on the north and west, respectively. Federal lands administered by the BLM do not include the Navajo Indian Reservation, Natural Bridges National Monument, Glen Canyon National Recreation Area, Canyonlands National Park, Hovenweep National Monument, or the Manti-La Sal National Forest.

The general setting of the Proposed Action, No-Action, and Mitigated Proposed Action alternatives would occur in varied types of terrain, from mesa tops to canyons. Groups would operate primarily off-trail, and camp in remote, primitive locations.

3.3 Critical Elements of the Human Environment and Other Resources and Issues Brought Forward for Analysis:

The following resources are brought forward for analysis: Areas of Critical Environmental Concern (ACEC), Cultural Concerns, Native American Religious Concerns, Wild and Scenic Rivers, Fish and Wildlife (including Special Status Species), Vegetation, Woodland, Recreation, Wilderness, Wilderness Characteristics, and Socioeconomics (see Appendix A, Interdisciplinary Team Analysis Record).

3.3.1 Resource 1: Areas of Critical Environmental Concern (ACEC):

Bridger Jack Mesa

The Bridger Jack Mesa existing ACEC (6,260 acres), designated to protect near-relict vegetation, is located in the proposed operating area under Alternative A (see map 4).

Bridger Jack Mesa ACEC covers a large mesa top consisting of pinyon-juniper woodlands and sagebrush-grass parks. The mesa consists of public land except for approximately 420 acres of state land. The cliffs surrounding the mesa top form a natural boundary, providing a relatively isolated area that has not been grazed since 1957. The area supports wintering mule deer, and year-round populations of smaller animals, and in the past few years some wintering of elk.

The mesa top meets the relevant criteria because of its isolated, near-relict plant community that remains unaltered by human intervention. Bridger Jack Mesa is a natural enclosure for study of a vegetative community released from grazing by domestic livestock. The adjacent public lands are open to multiple uses. These uses do not threaten the special value of the area because the cliffs surrounding the mesa top do not allow encroachment of adjacent activities.

Bridger Jack Mesa provides a control area to study cycles in the recovery of pinyon-juniper woodland and sagebrush-grass communities from livestock grazing. The vegetative community is important for study and comparison purposes to design management for pinyon-juniper woodlands and sagebrush-grass communities in other parts of the Colorado Plateau, and is, therefore, more than locally significant. Grazing management has historically been affected by the presence of cultural resources, wildlife habitat conflicts, and recreational activities. Bridger Jack Mesa ACEC provides an area, naturally protected, with the opportunity for comparative studies without conflicting uses.

Shay Canyon

The Shay Canyon existing ACEC (3,560 acres), designated to protect cultural values and aquatic habitat, is located in the proposed operating area under Alternative A (see map 4).

Shay Canyon ACEC currently includes cultural sites and sections of the upper Indian Creek drainage with a special emphasis area for the protection of aquatic and riparian habitat, delineated as a 275-foot corridor along upper Indian Creek. Rock art sites covering the walls of Shay Canyon are the significant cultural resources along Indian Creek. Native Americans, who have visited these sites, recognize images that relate to their migration history. Dinosaur tracks in the bedrock of the Shay Canyon streambed are a unique visual reminder of the area's distant geologic and natural past. The Special Emphasis Area (200 acres) located in the upper portion of Indian Creek is currently managed to support riparian/aquatic habitat.

Cultural resources in this area represent the interface between two prehistoric cultural groups: Anasazi and Fremont. This interface is represented in the unique motifs in the rock art and within site features and artifacts such as ceramics and baskets. The area provides an opportunity for cultural scientific research, and paleontology study.

3.3.2 Resource 2: Cultural Resources:

The proposed Wilderness Quest plan of operation will essentially involve about 45%, or 783,926 acres, of the lands administered by the MFO. Year-round field operations would occur in a variety of landscapes and geography, within areas possessing a variety of numerous cultural resources.

The MFO is located in the southeastern corner of Utah, adjacent to the Colorado and Arizona borders and is a significant part of the Colorado Plateau Region. The Abajo Mountains are situated in the center of the area. Elevations range between 3,700 feet at Lake Powell and 11,360 feet at the summit of Abajo Peak.

Cultural resources are those non-renewable remains of past human activity. For BLM management purposes, these remains take the form of sites, artifacts, structures, ruins, features and natural landscapes with particular cultural importance. Cultural resources also include places identified by Native American Tribes as sacred or otherwise important to the maintenance of group identity. Such locations are frequently referred to as Traditional Cultural Properties (TCP's).

More than 26,000 cultural resource sites have been documented thus far in all of San Juan County. An estimated 60-65% of these sites are located on public lands administered by MFO. Of the known sites within the MFO management area, several are listed on the National Register of Historic Places as either individual entities or as part of a larger archaeological district or National Historic Landmark.

While there have been many cultural resource inventories driven by Section 106 of the National Historic Preservation Act, there are many gaps in the database, which increases the overall difficulty in management of cultural resources. The total percentage of acres surveyed in the area is relatively small. A review of previous survey project locations available at the Utah State Historic Preservation Office suggest that less than 10% of lands administered by MFO have been subjected to intensive-level cultural resource inventories. Consequently, there are still large areas for which there is no current information regarding numbers, types, and distribution of cultural resources.

In general, an overview of the cultural history of the area can be divided into three sections: Prehistory, History, and Ethnography (see section 3.3.3, Native American Religious Concerns). Humans of multiple cultures have inhabited, traversed, mapped, and developed this area for greater than 12,000 years, and have left evidence of their activities on the landscape in the form of archaeological sites, buildings and structures.

The Prehistoric Cultural Period of human occupation begins with the:

(1) *Paleoindian Period* (12,000 to 6,000 B.C.) Represents the oldest time period for which archaeological evidence exists of human activity in the region (Jennings, Jessie D. 1978). The environmental conditions during this time period supported the presence of large game mammals such as giant bison, mammoth, camel and ground sloth (Grayson 1993). Archaeological evidence from this period tends to be limited and is often confined to stone tools and lithic debitage designed for hunting large game animals.

The next period of prehistoric occupation in the area is typically referred to as the:

(2) *Archaic Period* 6,000 B.C – 100 A.D.) Archaeological sites from this period are more numerous than those from the Paleoindian Period and contain a wide variety of artifacts. Stone tools from Archaic Period sites tend to be smaller and exhibit evidence of being used differently than the spear points Paleoindian peoples used for hunting. The lands of this area appear to have been very popular for Archaic Period people as archaeological sites from this period are found throughout the area. The archaeological record for San Juan County indicated widespread occupation of the area during the Archaic Period (Geib, Phil R. 1996; Geib, Phil R. and D. Davidson 1994; Cordell 1997). The people of this period were still relying on hunting and gathering, they followed migrating animals and seasonally ripening plants across the landscape, leaving evidence of their activities in numerous small sites located throughout the area.

Following the Archaic Period was the:

(3) *Formative Cultural period* (100 A.D. – 1300 A.D.). This period differs from the Archaic Period in that Formative Period peoples changed their approach to obtaining food from a strategy based on hunting and gathering wild animals and plants to one in which they began to grow their own food through an early form of agriculture (Reed, Paul F. 2000). This period lasted from around A.D. 100 to A.D. 1300.

Because the Formative Period peoples spent more time farming, the archaeological sites they left behind are larger and much more complex village sites with multi-stories, storage facilities (granaries) towers, plazas, and localized trash middens and in some areas formal road ways connecting large pueblos. Both large village-pueblo type sites and smaller archaeological sites representing the activities of Formative Period people are found through the area in very large numbers.

Within southeastern Utah, the Formative Period has one distinct culture occupying San Juan County: the Anasazi (or *Hisatsinom*, as they are called by the Hopi Tribe). The boundaries for the culture are debated; it is generally accepted that the Anasazi occupied the four corners region (Geib 1996: 98-88; Cordell 1997:196). Other prehistoric Pueblo groups also occupied the area during this same period and it is difficult to delineate between the various pueblo factions because of the regional integration during the Formative Period. The nature and cause of this integration is a research topic among southwestern archaeologists.

The area managed by MFO provides an opportunity to study this research question by academic institutions and other qualified investigators. It is also hypothesized that during the latter part of the Formative Period, the peoples (Athabaskans) who would later identify themselves as the Navajo and Apache moved into the area (Maryboy and Begay 2000:271).

The Historic Cultural Period or written history of the area, San Juan County, Utah, covers a long period from the early Spanish explorers to the recent past. While physical evidence of past human activities during the historic period is present within the area, much of it has been lost as a result of subsequent land uses in the same locations.

Cultural resource sites from the Historic Period can be found anywhere within San Juan County, though most are found around the roadways, communities, and developments that exist today (McPherson, Robert S. 1995). Cultural themes for the Historic Period are as varied as the various activities but include Historic Trails, mining locations and districts, cattle and sheep ranching.

3.3.3 Resource 3: Native American Religious Concerns:

Native American ethnographic issues in the area include the history and religious concerns of individual Native American Tribes and tribal groups. A detailed description of these concerns is complex and beyond the scope of this Environmental Assessment. However, to demonstrate the complexity and landscape-wide nature of these concerns those tribes who have expressed religious and traditional importance to places include but are not limited to: Ute Mountain Utes, White Mesa Utes, Paiute Tribe of Utah, The Hopi Tribe, Pueblo of Zuni, Navajo Nation, Pueblo of Jemez, Pueblo of Zia, and Pueblo of Acoma.

Several site types have been identified as potential Traditional Cultural Properties (TCP's) or cultural locations or landscapes that are eligible for inclusion in the National Register (of Historic Places) because of "association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community." In the MFO resource area, the Formative Period cultural sites have been identified by the Pueblo Tribes and other Native American Groups as places of traditional importance along with other sites including rock art locations, lakes, springs, shelter sites and landscape/geological features (MFO Analysis of the Management Situation, 2005, Chapter 4, pg. 9).

There were 16 individual Native American Tribes, Groups, Pueblos and Chapters consulted with respect to the proposed action.

3.3.4 Resource 4: Wild and Scenic Rivers:

3.3.4.1 Introduction:

BLM's policy is to evaluate all potentially eligible rivers to determine if they are free-flowing and possess any Outstandingly Remarkable Values (ORVs) that are river-related (within ¼ mile of each side of the river/stream), and regionally and/or nationally significant. If these factors are met, the river/segments are determined eligible and tentative classifications of wild, scenic or recreational are made based on the current level of human development and use associated with the eligible rivers/segments.

BLM Manual 8351.52C - Section 5(d) Rivers states that "Once a river segment has been determined eligible, BLM's policy shall be to protect and, where possible, enhance any identified outstandingly remarkable river values pending a subsequent suitability determination and/or designation by Congress. ...Management and development of the eligible river and its corridor cannot be modified, subject to valid existing rights, to the degree that it eligibility or tentative classification would be affected."

The area of the river corridor to be protected would be within ¼ mile on each side of the river. In addition, all floodplains and riparian/aquatic areas are managed in accordance with Executive Orders 11988 and 11990, and the Endangered Species Act, the BLM Riparian Area Management Policy, and the Utah guidelines for implementing BLM riparian area management policy.

The river segments identified by the MFO as eligible and which lie within the proposed area of use by the proponents include the following:

River Segment Name	Segment Description and Length in River Miles: (BLM River Miles [BLMRM], and Total River Miles [TRM])	Free-Flowing	Outstandingly Remarkable Values	Tentative Classification: - Wild - Scenic - Recreational
Indian Creek	Forest boundary to Donnelly Canyon BLMRM: 4.8 miles	Yes	Cultural	Recreational
Fable Valley	Source to mouth at Gypsum Creek BLMRM: 6.8 miles TRM: 6.8miles	Yes	Wildlife Ecological	Scenic
Dark Canyon	Youngs Canyon to GCNRA BLMRM: 6.4 miles TRM: 13.6 miles	Yes	Scenic Recreation Wildlife	Wild
Arch Canyon	Forest boundary to ½ mile west of its confluence with Comb Wash BLMRM: 6.9 miles TRM: 7.7 miles	Yes	Fish Recreation Wildlife Cultural Ecological	Recreational

3.3.4.2 Outstandingly Remarkable Values:

INDIAN CREEK - Perennial stream from NF boundary to Shay Canyon, and Intermittent from Shay Canyon to Donnelly Canyon			
Segment Description	Length In BLM River Miles	Outstandingly Remarkable Values	Tentative Classification (See Appendix)
Manti-LaSal National Forest Boundary to Donnelley Canyon	4.8 miles	Cultural	Recreational

Description of Outstandingly Remarkable Values (ORVs):

- **Cultural**

Rock art sites are the significant cultural resources along Indian Creek. Newspaper Rock, the best-known site along the Creek, is listed on the National Register of Historic Places. Native Americans, who have visited these sites, recognize images that relate to their migration history. Cultural resources in this area represent the interface between two prehistoric cultural groups: Pre-Puebloan and Fremont. This interface is represented in unique motifs in the rock art in this area as well as within site features and artifacts such as ceramics and baskets.

<u>DARK CANYON</u> - Perennial stream			
Segment Description	Length In BLM River Miles	Outstandingly Remarkable Values	Tentative Classification (See Appendix)
Youngs Canyon to Glen Canyon National Recreational Area	6.4 miles	<ul style="list-style-type: none"> • Scenic • Recreation • Wildlife 	Wild

Description of Outstandingly Remarkable Values (ORVs):

- **Scenic**

The Dark Canyon area is roadless, primitive and undeveloped, and is one of the deepest canyon systems in the region. The remote location, dramatic rugged terrain, deep walled canyon, and naturalness of the area create a high scenic value. It has unobstructed and expansive diversity of views including 1,200 foot vertical cliff walls, rimrock, outcrops and spires, and a visual contrast from soil and rock color, flowing water, potholes, pour offs, and diverse vegetation located throughout the canyon and tributaries.

The BLM portion of the Dark Canyon watershed is contiguous with Glen Canyon National Recreation Area where it drains into the Colorado River, and with the Manti-LaSal National Forest, where Dark Canyon is a designated wilderness area.

- **Recreation**

Dark Canyon has a high level of diversity, including outstanding natural, historical, and cultural features offering recreational, educational, and scientific opportunities for visitors. It attracts visitors internationally. A wide variety of recreational opportunities are available including backpacking, camping, photography, wildlife viewing, canyoneering and orienteering, and viewing prehistoric archeological sites. The Ancestral Puebloans used this canyon area, leaving behind cliff dwellings, rock shelters, rock art, and storage areas, which are viewed from within the corridors of the canyon.

- **Wildlife**

Dark Canyon is located within designated critical habitat for the Mexican spotted owl. Surveys have been conducted in this canyon, and there have been owls using this area. Dark Canyon and its drainages also contain the only two protected activity center(s) (PAC) for the Mexican spotted owl within the MFO area. PACs are nest areas occupied at least once since 1989. The habitat in this canyon is also critical for peregrine falcon and other raptors. At the lower elevations, there are several species of wildlife, including ringtail cats, bobcats, and desert bighorn sheep.

Comment [t1]: I changed this sentence a little.

<u>FABLE VALLEY</u> — Perennial stream			
Segment Description	Length In BLM River Miles	Outstandingly Remarkable Values ORVs	Tentative Classification (See Appendix)
Source to Mouth	6.8 miles	<ul style="list-style-type: none"> • Wildlife • Ecological 	Scenic

Description of Outstandingly Remarkable Values (ORVs):

- **Wildlife**

Fable Valley is a narrow, discontinuous riparian corridor characterized by appropriate willow-dominated riparian vegetation, which is prime habitat for the Southwestern willow flycatcher. The extreme north end of the canyon is a deep, narrow slick rock-dominated zone that is prime habitat for the Mexican spotted owl, and is designated as critical habitat for Mexican spotted owls. Surveys for both of these species have been conducted in Fable Valley with both of these endangered species present. This is the only canyon in the field office area in which both endangered species have been documented. This area is also important for other neo-tropical birds that migrate into Utah. Fable Valley has perennial water and an abundance of native riparian vegetation, and sagebrush benches. The valley is a very important area for other wildlife, including mule deer, elk, bats, reptiles, amphibians, and raptors.

- **Ecological**

Fable Valley offers a diversity of both plant and animal species, including the presence of rare communities. There is an array of ecological values including a unique riparian habitat that allows for the cohabitation of two federally listed T & E avian species.

The multi-terraced canyon walls are adequate for nesting and roosting of the threatened Mexican spotted owl, while the numerous small open pools and discontinuous flows fed by subsurface springs and seeps provide for a year round supply of water. The associated willow-dominated riparian areas include over 17 vegetative species, with few exotic tamarisk, providing habitat for the endangered southwestern willow flycatcher, and 27 upland vegetative species. The Monument milkvetch (*Astragalus monumentalis*) and the Kachina daisy (*Erigeron kachinensis*), both sensitive species, may also occur in the area.

<u>ARCH CANYON</u> – Perennial stream in some areas, Intermittent in others			
Segment Description	Length In BLM River Miles	Outstandingly Remarkable Values	Tentative Classification (See Appendix)
Manti-LaSal National Forest Boundary to ½ mile west of its confluence with Comb Wash	6.9 miles	<ul style="list-style-type: none"> • Fish • Recreation • Wildlife • Cultural • Ecological 	Recreational

Description of Outstandingly Remarkable Values (ORVs):

- **Fish**

Arch Canyon contains aquatic habitat for the Mountain sucker, Flannelmouth sucker, and Speckled Dace. The first two species are listed as Species of Special Concern (any wildlife species or subspecies that has experienced a substantial decrease in population, distribution and/or habitat availability) for the state of Utah.

- **Recreation**

The flowing water in Arch Canyon with its red rock walls, arches, pinnacles, rock outcrops, alcoves and numerous prehistoric ruins and rock art, provides a popular recreation destination. The VRM Class II with Class A scenic quality, the steep walled, meandering canyon with a variety of vegetation types attract

- **Wildlife**

Arch Canyon provides habitat to several wildlife species. There is designated critical habitat for Mexican spotted owls in the upper reaches of the canyon, and surveys have determined that owls use this canyon for forage while nesting in nearby canyons. There is also potential habitat for the Southwestern willow flycatcher.

- **Cultural**

The cultural resources located here are well preserved prehistoric buildings clustered in sites occupied for hundreds of years. During some periods of that occupation, buildings strongly resembling architecture in Chaco Canyon were built. The canyon also contains rock art, with both pictographs and petroglyphs found here. Sites are almost always located well above the stream bottom because of the flash floods that occur in Arch Canyon. They are of significance because of the scientific information they contain, the fact that they are well preserved, and because of their interest to the recreating public.

- **Ecological**

Unique, rich riparian vegetation exists in Arch Canyon. Unique for this area are grasses and shrubs, usually common to the mid-western United States, which appear along the creek. Arch Canyon is important habitat for fish and wildlife species.

3.3.4.3 Tentative Classification and Management for WSR segments:

The Tentative Classification levels for eligible river/segments are:

Wild River Areas are defined by the WSRA to include: “Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watershed or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.”

Management Objective for Wild River Areas – Management of wild river areas shall give primary emphasis to protecting the values which make it outstandingly remarkable while providing river-related outdoor recreation opportunities in a primitive setting.

Management Standards for Wild River Areas – Public Use and Access: Recreation use including, but not limited to, hiking, fishing, and boating is encouraged in wild river areas to the extent consistent with the protection of the river environment. Public use and access may be regulated and distributed where necessary to protect and enhance wild river values.

Scenic River Areas – are defined by the WSRA to include: “Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.”

Management Objective for Scenic River Areas – Management of scenic river areas should maintain and provide outdoor recreation opportunities in a near-natural setting. The basic distinctions between a “wild” and a “scenic” river area are the degree of development, types of land use, and road accessibility.

Management Standards for Scenic River Areas – Public Use and Access: Recreation use including, but not limited to: hiking, fishing, and boating is encouraged in scenic river areas to the extent it is consistent with the protection of the river environment. Public use and access may be regulated and distributed where necessary to protect and enhance scenic river values.

Recreational River Areas – are defined by the WSRA to include: “Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.”

Management Objective of Recreational River Areas – Management of recreational river areas shall give primary emphasis to protecting the values which make it outstandingly remarkable while providing river-related outdoor recreation opportunities in a recreational setting.

Management Standards for Recreational River Areas - Recreation use including, but not limited to: hiking, fishing, hunting, and boating is encouraged in recreational river areas to the extent consistent with the protection of the river environment. Public use and access may be regulated and distributed where necessary to protect and enhance recreational river values.

Specific management requirements as outlined in Section 8351.32C for eligible river corridors will provide protection for:

1. Free-flowing values/characteristics cannot be modified through stream impoundments, diversions, channelization, and/or rip-rapping to the extent BLM is authorized under law.
2. Outstandingly remarkable values (subject to valid existing rights) to the extent practicable, enhanced.

3.3.5. Resource 5: Fish and Wildlife (Including Special Status Species):

The MFO area is in the heart of the Colorado Plateau and has a great amount of landscape diversity. This location produces a unique combination of landforms and habitat types. This diversity of habitat is reflected in the diversity of terrestrial and aquatic life that occurs within its borders. For the purpose of this EA, the focus will be primarily on a variety of special interest species because they have greater relevance to the evaluation of potential affects and development of alternatives and conservation measures to protect all wildlife and their habitat.

Mule deer occupy most ecosystems in Utah, but likely attain their greatest densities in shrublands characterized by rough, broken terrain and abundant browse and cover. Winter diets of mule deer consist of approximately 75 percent browse from a variety of trees and shrubs and 15 percent forbs. Grasses make up the remaining 10 percent of the diet during winter (Fitzgerald et al. 1994). Winter range habitat primarily consists of shrub-covered, south-facing slopes. Given that winter ranges often coincide with areas of concentrated human use and occupation, winter habitat is often considered a limiting factor for mule deer in Utah. Accordingly, the San Juan RMP identified and designated crucial winter ranges for deer. Use within the crucial deer winter habitat areas may be limited during periods of critical winter use from December 15 to April 30 annually (RMP 1991). The proposed action, including established winter camps are located within areas currently designated as crucial deer winter range.

Desert Bighorn Sheep (*Ovis Canadensis nelsoni*)

Desert bighorns inhabit southern Utah with significant populations across the Colorado Plateau. Bighorns prefer open habitat types with adjacent steep rocky areas for escape and safety. Habitat is characterized by rugged terrain including canyon, gulches, talus cliffs, steep slopes, mountain tops, and river benches (Shackleton et al. 1999). Desert bighorns generally do not migrate. Human disturbance in bighorn sheep habitat is an increasing concern in many areas of Utah. In the San Juan RMP, there is designated crucial bighorn lambing and rutting areas. Use within these areas may be limited during periods of sensitive life cycles of lambing from April 1 to July 15 annually and the rutting season from October 15 to December 31 annually (RMP 1991). The proposed action, including established winter camps are within areas currently designated as crucial lambing and rutting areas.

Raptors

Several species of raptors (birds of prey) can be found throughout the field office area year-round. Most nesting raptors are relatively sensitive to human activities and disturbances. Raptor and their nests are provided with generic legal protection designed to prevent disturbances under the following laws: the Migratory Bird Treaty Act of 1918, the Eagle Protection Act of 1962 (as amended), and the Endangered Species Act of 1973 (as amended) for federally listed species, and the U.S. Fish and Wildlife Coordination Act. In addition, the Utah Field Office of the U.S. Fish and Wildlife Service (USFWS) issued guidelines for the establishment of disturbance-free buffer zones around raptor nests, and the identification of mitigation techniques available for use when activities conflict with these buffer zones (Romin and Muck 1999). Raptors generally nest in large trees, on cliffs, and in cavities. The majority of raptors nest between the dates of March 1 to August 31. Limited raptor surveys have found a number of nesting raptors, including golden eagle (*Haliaeetus leucocephalus*), prairie falcon (*Falco mexicanus*), peregrine falcon (*Falco peregrinus*), American kestrel (*Falco sparverius*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), and great-horned owl (*Bubo virginianus*).

Bald Eagle (*Haliaeetus leucocephalus*)

The Bald Eagle is a federally listed threatened species. The bald eagle winters throughout the MFO area from November 1 through March 31. Wintering areas are commonly associated with open water, though other habitats may be used if food resources, such as rabbit or deer carrion, are readily available. Locally, bald eagles can be observed foraging along highways and are most often seen around large water sources such as Lake Powell, the San Juan and Colorado River, and Recapture Reservoir. There have been no known nesting bald eagles within the MFO area.

Mexican Spotted Owl (*Strix occidentalis lucida*)

The Mexican spotted owl (MSO) is a federally listed threatened species. In Utah, MSOs are typically found in canyon habitats that are typically characterized by cooler and often more humid conditions found in steep, narrow canyons, often containing crevices, ledges, and/or caves. These canyons can contain small clumps or stringers of ponderosa pine, Douglas fir, white fir, and/or pinyon-juniper, or riparian vegetation with a high percent of ground litter and woody debris. There have been surveys throughout the MFO area for MSO since 1991. To date, there are two Protective Activity Centers (PACs) designated within Dark Canyon where nesting owls have been documented. There are also several other canyons where MSOs have been found, but there is still no documentation of breeding. Wilderness Quest is proposing to use areas where there are MSOs PAC and canyons where they have been found.

Designated Critical Habitat and Potential Habitat for Mexican Spotted Owls

Critical habitat (CH) for the MSO was designated in February of 2001. Areas designated as critical habitat are those areas that are needed for the conservation of the MSO. These CH boundaries were not drawn to include only the owls' preferred canyon nesting and roosting habitat, but also the surrounding uplands. The great majority of the habitat within the CH boundaries is upland habitat and the USFWS recognizes that much of the area within the CH area may not be suitable for owls. Wilderness Quest is requesting to use approximately 235,000 acres of areas that are located within CH.

A tool for analyzing canyon habitats that may have higher potential for occupancy and nesting birds than other nearby canyons is the Mexican Spotted Owl Habitat Model (Willey, 2000, and 1997). The model uses terrain parameters to determine depth and width of canyons (owls need cooler microsites for nesting and roosting) and other features (such as distance to water and north facing cliff sites). The model predicts the canyons most likely to support nesting owls, and it can then be determined if any "higher quality" habitat (according to the model) exists. It is important to note that any model is only an analysis tool, and experience with the current owl model has shown it to be accurate in some cases, but not in others (such as delineating cliff faces outside of canyons as high potential owl habitat; owls have been found to nest only in canyons in southern Utah). There are many canyons within the boundaries that Wilderness Quest is proposing to use that indicate habitat for MSOs according to both the 1997 and 2000 model.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

The Southwestern willow flycatcher (SWIFL) is listed as endangered under the Endangered Species Act. There is currently no designated critical habitat within the MFO area for SWIFL. The southern portion of Utah is considered part of the breeding and migration range from May 1st to August 15th. In Utah, SWIFL are typically found in mixed native and exotic riparian species habitats, generally dominated by coyote willow, tamarisk, and Russian olive (Johnson et. al. 1999a and 1999b). Regardless of plant species composition or height, occupied SWIFL sites consist of dense vegetation in the patch interior that is generally 3 to 4 m (10 to 13 ft) above ground, or in aggregates of dense patches interspersed with openings. Almost all occupied habitats are found near slow-moving or still surface water. Saturated soil is present at or near the breeding site during wet or non-drought years (Sogge et. al. 1997; Sogge and Marshall 2000; USFWS 2001 and 2002). Within the proposed use areas of Wilderness Quest, flycatchers have only been documented during migration. These areas include the larger riparian areas, such as Fable Valley and Comb Wash.

3.3.6 Resource 6: Vegetation:

The proposed operating area is located in the heart of the Colorado Plateau, which contains a great amount of vegetative diversity. The vegetation of the MFO is classified into five major vegetation communities: pinyon pine/Utah juniper, saltbush, sagebrush, blackbrush, and grassland. Differences in vegetative composition reflect the environmental diversity across the field office area found in factors such as soil type, elevation, aspect, slope, topography, and precipitation.

Bridger Jack Mesa

The top of Bridger Jack Mesa consists mainly of pinyon-juniper woodland and sagebrush-grass parks, and is designated as an ACEC. The mesa is public land except for approximately 420 acres of state land.

The cliffs surrounding the mesa top form a natural boundary providing a relatively isolated area that has not been grazed since 1957. Access to the top of Bridger Jack Mesa is restrictive (options include use of two narrow stock trails, and/or technical climbing). The area supports wintering mule deer, and year-round populations of smaller animals, and in the past few years some wintering of elk.

The mesa top is designated as an ACEC because of its isolated, near-relict plant community that remains unaltered by human intervention. Bridger Jack Mesa is a natural enclosure for the study of a vegetative community released from grazing by domestic livestock.

The adjacent public lands are open to multiple uses. These uses do not threaten the special value of the area because the cliffs surrounding the mesa top do not allow encroachment of adjacent activities.

Bridger Jack Mesa provides a control area to study cycles in the recovery of pinyon-juniper woodland and sagebrush-grass communities from livestock grazing. The vegetative community is important for study and comparison purposes to design management for pinyon-juniper woodlands and sagebrush-grass communities in other parts of the Colorado Plateau, and is, therefore, more than locally significant.

Grazing management has historically been affected by the presence of cultural resources, wildlife habitat conflicts, and recreational activities. Bridger Jack Mesa provides an area, naturally protected, with the opportunity for comparative studies without conflicting uses.

Minimal access, coupled with no recent livestock use, has allowed for establishment of near-relict vegetation community on the mesa top.

Fable Valley

Fable Valley offers a diversity of both plant and animal species, including the presence of rare communities. There is an array of ecological values including a unique riparian habitat that allows for the cohabitation of two federally listed T & E avian species.

The multi-terraced canyon walls are adequate for nesting and roosting of the threatened Mexican spotted owl, while the numerous small open pools and discontinuous flows fed by subsurface springs and seeps provide for a year round supply of water.

The associated willow-dominated riparian areas include over 17 vegetative species, with few exotic tamarisk, providing habitat for the endangered southwestern willow flycatcher, and 27 upland vegetative species. The Monument milkvetch (*Astragalus monumentalis*) and Kachina daisy (*Erigeron kachinensis*), both sensitive species, may also occur in the area.

Beef Basin

Beef Basin is characterized by rough, broken terrain surrounding sagebrush-grass parks and pinyon-juniper woodland, thereby providing crucial habitat for deer. Shrub species, such as sagebrush, are critical big game habitat elements, and are very susceptible to loss by fire.

3.3.7 Resource 7: Woodlands:

The woodland community includes such species as pinyon pine, juniper, and cottonwood. In the canyon areas, especially Dark Canyon and Fable Valley, these vegetative species provide important habitat for wildlife species, including Mexican spotted owl and Southwestern willow flycatcher. Other, non-avian, wildlife species also rely on woody debris for their habitat needs.

3.3.8 Resource 8: Recreation:

Recreation in the MFO resource area has grown in popularity since the approval of the current Resource Management Plan (RMP) in 1991. Recreation resource management within the FO resource area is becoming a major concern because of the increasing intensity of recreational activities. The wide range of recreational opportunities that are available and the high degree of scenic quality, both within the resource area and in the nearby national parks and monuments, draws a multitude of visitors to the area.

With the number of visitors continuing to grow, recreation activity is expanding further into the backcountry and resource/user conflicts are becoming more common. The current RMP does not adequately address these concerns, and thus the MFO is currently in the process of a RMP revision. Recreation resource issues to be considered within this planning revision include:

- The need for an updated travel plan and maps that show the trail system for equestrian, hiking, motorized and non-motorized traffic;
- The development of specific management plans for high-use areas, such as Dark Canyon, Cedar Mesa, Hole in the Rock, San Juan River, and Colorado River;
- The development of management plans for Special Recreation Management Areas (SRMAs) and Extensive Recreation Management Areas (ERMAs);
- The incorporation of a Benefits-Based Management (BBM) approach for SRMAs and ERMAs;
- Recreation-related human health and safety concerns;
- Needs and concerns related to developed and dispersed camping;
- Addressing the concerns of visitors who recreate in NPS parks and monuments, but camp on BLM public lands;
- Conflicts and impacts of other resource uses on recreation resources (motorized, non-motorized, livestock grazing, minerals development, fire management, etc.);

- Considering the use of a private permitting system;
- Conflicts between private versus commercial recreation resource uses;
- Impacts of increasing backcountry recreational activities;
- Managing OHV use within the FO planning area;
- Reducing conflicts between OHV use and other recreational activities.

Each of the resource issues mentioned above is directly related to the issuance of this SRP. Specifically, balancing the needs of commercial user groups, such as Wilderness Quest, with the needs of other commercial user groups and private recreational users is a major challenge to the recreation and resources management staff of the MFO.

By increasing to seven groups, Wilderness Quest is proposing to nearly double its business conducted on MFO managed lands, and thus user days operating on the resource would increase respectively. In theory, this could create additional impacts to the resources and to recreation opportunities and experiences. However, these additional impacts can, for most areas, be mitigated. Bridger Jack Mesa, Indian Creek Canyon and Mule Canyon receive high levels of private and permitted recreation use, including: day hiking, backpacking, rock-climbing, and OHV use. These specific areas and additional mitigation measures for other recreation areas and resources are addressed in detail in Chapter 4.

3.3.9 Resource 9: Wilderness:

The Monticello Field Office manages 13 Wilderness Study Areas (WSAs) totaling approximately 387,000 acres, including two Instant Study Areas (ISAs), which were previously identified as primitive areas. Instant Study Areas, in combination with contiguous WSAs, are known as ISA Complexes. Under the proposed action, Wilderness Quest would operate partially or wholly within the following WSAs and ISA (see map 5):

Wilderness Study Areas	Acres
Bridger Jack Mesa	5,290
Butler Wash	22,030
Cheesebox Canyon	15,410
Dark Canyon ISA	68,030
Indian Creek	6,870
Mancos Mesa	51,440
Mule Canyon	5,990
South Needles	160
TOTAL	175,220

All figures are shown as approximate acres

A variety of primitive recreation opportunities are available in these areas, such as cultural/historical exploration, photography, rafting, kayaking, canoeing, climbing, rock climbing, hiking, and backpacking.

Each WSA and ISA is managed according to the BLM's *Interim Management Policy and Guidelines for Lands under Wilderness Review (IMP)* until congress determines if they should be designated as Wilderness. The objective of the IMP is to manage the WSAs in a manner that does not impair their suitability for designation as Wilderness.

In general, the only activities permissible under the IMP are temporary uses that create no new surface disturbance or involve permanent placement of structures. Temporary, non-disturbing activities such as backcountry recreation (hiking and camping), as well as activities governed by valid existing rights, may generally continue to occur in WSAs.

3.3.10 Resource 10: Wilderness Characteristics:

There are 10 areas located wholly or partially within the proposed operating area (323,863 Total Acres) that were found to possess wilderness characteristics in the BLM 1999 Utah Wilderness Re-Inventory:

Areas with Wilderness Character	Acres
Bridger Jack Mesa	23,254
Butler Wash	1661
Cheesbox	13,244
Dark Canyon	66,325
Fort Knocker	12,409
Gravel and Long Canyon	36,933
Harmony Flat	9660
Mancos Mesa	62,190
Nokai Dome	94,189
Sheep Canyon	3998
TOTAL	323,863

All figures are shown as approximate acres

These areas were found to possess Wilderness Characteristics related to size, naturalness, and outstanding opportunities for solitude and primitive recreation. A variety of primitive recreation opportunities are available, including multi-day backpacking trips, canyoneering, hiking, horseback riding, hunting, cultural and historical exploration, photography, rafting, kayaking, canoeing, climbing, and rock scrambling. These areas may also contain supplemental values such as spectacular scenic viewpoints, rock-art panels, bighorn sheep, battle sites where skirmishes between native Americans and Anglo-European settlers, archeological sites, and the Hole-In-The-Rock Emigrant Trail. The areas that possess Wilderness Characteristics are managed according to existing land use plans. When an action is proposed in an area with wilderness characteristics, the BLM prepares a NEPA document to analyze the effects of the action on the wilderness characteristics of the area.

This EA also considers values inventoried in the Utah Wilderness Coalition (UWC) Red Rock Heritage Wilderness proposal, House of Representatives bill 1796 and Senate Bill 639 in the 108th Congress. Wilderness Quest is proposing to operate in several areas shown within the UWC proposal to possess wilderness characteristics. These areas are analyzed in Chapter 4.

3.3.11 Resource 11: Socioeconomics:

San Juan County and the city of Monticello are located in one of the most remote areas in the contiguous United States. San Juan County is the most sparsely populated county in the State of Utah. The town of Monticello contains approximately 2000 residents. Consequently, the town and the county depend on tourism and local businesses to stimulate their economies. The economy in San Juan County is currently struggling, with one of the lowest per capita incomes in Utah and a high unemployment rate.

Wilderness Quest has been operating in San Juan County for 18 years. According to an article written in the San Juan Record Newspaper on February 22, 2006, Gordon Birch, CEO of Wilderness Quest, states that the company is one of the fastest growing businesses in San Juan County, and has increased its number of employees from 24 to 74, in the past year alone. Mr. Birch claims that each dollar generated by the Wilderness Quest program runs through the local economy four times. At their current level of use, it is estimated that the local economic benefit generated by Wilderness Quest is \$3 million per year. If a Special Recreation Permit is issued allowing Wilderness Quest to expand up to their maximum proposal of seven groups, the local economic benefit could raise to approximately \$10 million per year. Consequently, the town of Monticello and San Juan County stand to receive economic benefits via new real estate transactions (move-ins, housing rentals, etc.), increased property tax revenue, thus providing benefits to schools, etc. from an increase in commercial permitted recreation.

4.0 ENVIRONMENTAL IMPACTS

4.1 Introduction:

This EA section details the environmental impacts expected to occur as a result of the Proposed Action, No Action, and Mitigated Proposed Action alternatives. The following resources are analyzed in detail: Areas of Critical Environmental Concern, Cultural Resources, Native American Religious Concerns, Wild and Scenic Rivers, Fish and Wildlife (Including Special Status Species), Vegetation, Woodlands, Recreation, Wilderness, Wilderness Characteristics, and Socioeconomics.

4.2 Direct/Indirect Impacts:

The following documentation analyzes the direct and indirect impacts to specific resources of the proposed action and the alternatives.

4.2.1 Alternative A – Proposed Action:

4.2.1.1 Resource 1: Areas of Critical Environmental Concern (ACEC):

Bridger Jack

It is anticipated that increased use of the top of Bridger Jack Mesa by the wilderness therapy groups, if permitted, would impact the near-relict integrity of the associated vegetative communities. Such impacts could include vegetative loss, increased risk of human caused fires, and high risk of initial establishment and subsequent dispersal of invasive, non-native species, all stemming from group camping activities.

Shay Canyon

The Shay Canyon Cultural ACEC is located in the Indian Creek Canyon unit. This ACEC was designed to protect cultural and paleontological values as well as aquatic habitat. Rock art cultural sites covering the walls of Shay Canyon are the significant cultural resources along these portions of the Indian Creek drainage. Native Americans, who have visited these sites, recognize images that relate to their migration history. Dinosaur tracks exposed in the Chinle Formation in the Shay Canyon drainage represent one of the only three track ways of late Triassic theropods (*Atreipus*) and the only track way of this type found in Utah (DeCourten F. 1998).

Cultural resources in the wider area of Indian Creek represent the interface between two prehistoric groups: Anasazi and Fremont. This interface is well represented in the rock art motifs, ceramics and baskets. The area provides an opportunity for cultural resource scientific research, and paleontology study. This area is already experiencing increased recreational use from a multitude of campers who become displaced when developed campgrounds within Canyonlands National Park are full. In addition, this area also receives use from rock climbers, OHV users, and the general recreating public. Increased commercial use may be damaging to a wide perspective of cultural and paleontological values.

4.2.1.2 Resource 2: Cultural Resources:

Issue 1: Number of User Days. The upward trend in recreational activities, increased use of the back country and more OHV activity has placed considerable pressure on the MFO's cultural resources. These pressures are mitigated in some areas by requiring a Special Recreation Permit with quotas and/or other regulations. The area of proposed activity by Wilderness Quest will take place in back country areas where the MFO has no general permit requirements except for stipulations for permitted commercial use. These areas attract the non-commercial recreational public hiker/backpacker or other types of users displaced from permitted areas of BLM and National Park Service lands. By increasing the user days for commercial activity in this area, additional pressure on cultural resources will occur. Overall recreational visitor user days in 2003 increased by 28,000 on MFO administered lands. Predicted recreational user days for 2006 may be as high as 40-45,000. Wilderness Quest activity increases will add to the number of visitors to cultural sites and could increase the 2006 number to 67-72,000. This type of recreation pressure on cultural resources may prove to be damaging to a wide perspective of cultural values. The MFO would use mitigating measures to protect cultural damages from Wilderness Quest activities such as monitoring, education and training about correct site visitation ethic.

Issue 2: Impacts to Group Campsites. The proposed action states that when camp sites show signs of adverse environmental impacts, they would be closed. The importance of education and training about identifying cultural resources in the field and the threat to different types of cultural resources by camp activities is of paramount importance in preventing damage to cultural resources. Identification of camp areas showing adverse environmental impacts by Wilderness Quest personnel may occur too late to prevent damage to cultural resources.

Issue 3: Digging Latrines. The proposed action would have a latrine trench (24" L X 12" W X 18" D) dug each time a group camps. Each group is to camp in the same camp site every two weeks or 26 times each year for five years. Since each latrine is 3 square feet this works out to a disturbance at each camp site of potentially 200 – 400 square feet for the 5 year permit. Over time, this represents enough excavation to seriously damage one or more types of cultural sites and could represent an "adverse effect" for cultural resources as defined in 36 CFR 800.5 (1) (see appendix E).

Issue 4: Increased Area of Operation/Area of Potential Effect (APE). The proposed Wilderness Quest plan increased area of operation identifies an Area of Potential Effect (APE) of about 45% or 783,926 acres of the lands administered by the MFO. In addition, year round field operations would occur in a variety of landscapes and geographies with numerous types and densities of cultural resources. To date, more than 26,000 cultural resource sites have been documented thus far in all of San Juan County. An estimated 60-65% of these sites are located on public lands administered by the MFO.

Of the known sites within the MFO management area, several are listed on the National Register of Historic Places as either individual entities or as part of a larger archaeological district or National Historic Landmark. However, the total percentage of acres surveyed in the MFO area remains small. A review of previous survey project locations available at the Utah State Historic Preservation Office suggest that less than 10% of all BLM lands within MFO have been subjected to intensive-level cultural resource inventories. As a consequence, there are still large areas for which there is little quantitative information regarding numbers, types, and distribution of cultural resources.

There are several areas where known high site densities occur with that have known Nationally Significant cultural resources present. There is a high probability that the proposed action will have an effect on at least one important factor that could cause some cultural properties to lose their National Significance or effect eligibility to be included in the National Register of Historic Places. This type of effect would result in an adverse effect as defined in 36 CFR 800.5 (1) (see appendix E).

Issue 5: User Group Issues: With this type of cultural site diversity density within MFO, there are several issues related to user groups within the broad mandate of "multiple land use" that the MFO operates under. For cultural resources, recreational activity (private and commercial, i.e. SRP activity) creates the single largest indirect "demand" on cultural resources. Indirect "use" or "demand" on cultural resources by recreational activity is defined as impacts to cultural resources that detract from their traditional, scientific, public, experimental, and/or public use values. These uses or demands are, in most cases, inadvertent and result from visitors' lack of awareness regarding the presence of the resource; or a lack of education as to the importance of avoiding damage to cultural resources, or the cumulative impacts of multiple visitors on such resources; or from increased erosion on cultural sites adjacent to heavily-used areas.

These types of recreation pressures on cultural resources may prove to be damaging to a wide perspective of cultural values (MFO Analysis of the Management Situation, 2005 Chapter 4, pg. 1-5).

4.2.1.3 Resource 3: Native American Religious Concerns:

Several site types have been identified as potential Traditional Cultural Properties (TCP's) or cultural locations or landscapes that are eligible for inclusion in the National Register (of Historic Places) because of "association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community." In the MFO area the Formative Period cultural sites have been identified by the Pueblo Tribes and other Native American Groups as places of traditional importance along with other sites including rock art locations, lakes, springs, shelter sites and landscape/geological features. There were 16 individual Native American Tribes, Groups, Pueblos and Chapters that MFO consulted with for this Environmental Assessment proposed action (see section 5.2).

4.2.1.4 Resource 4: Wild and Scenic Rivers:

Free-Flowing Nature, Tentative Classification levels, and Outstandingly Remarkable Values of WSR eligible segments

The free-flowing nature of the rivers/stream would not be impacted by the proposed recreational use of the areas associated with the Indian Creek, Dark Canyon, Fable Valley, and Arch Canyon WSR eligible segments. The proposed action is land-based and would have no effect on the river/stream flows.

The proposed action would have no impact on the level of Tentative Classification of the river/segments of Indian Creek, Dark Canyon, Fable Valley, or Arch Canyon to the degree that the classification would have to be changed to the next lower level (e.g., wild to scenic, or scenic to recreational). Tentative Classification is a determination of the level of development and current use levels based on criteria in the WSRA.

Dark Canyon has a Tentative Classification of *Wild*. Under the Wild and Scenic River Act (WSRA) the management objective for *Wild* river areas includes Public Use and Access listing "Recreation use including, but not limited to: hiking, fishing, and boating is encouraged in wild river areas to the extent consistent with the protection of the river environment."

The proposed action states that "water/supply drops and camping would be done at a minimum of 200 feet from natural flowing creeks and streams, and a minimum of 600 feet from seeps, springs and developed water sources (i.e.: stock tanks, guzzlers, flowing wells, etc.)." Dark Canyon is currently a wilderness study area (WSA). In the proposed action, it states that travel [motorized] would only be allowed on designated ways.

Fable Valley has a Tentative Classification of *Scenic*. Under the Wild and Scenic River Act (WSRA), the management objective for *Scenic* river areas includes Public Use and Access listing "Recreation use including, but not limited to: hiking, fishing, and boating is encouraged in wild river areas to the extent consistent with the protection of the river environment. Public use and access may be regulated and distributed where necessary to protect and enhance scenic river values."

The proposed action states that "water/supply drops and camping would be done at a minimum of 200 feet from natural flowing creeks and streams, and a minimum of 600 feet from seeps, springs and developed water sources (i.e.: stock tanks, guzzlers, flowing wells, etc.)." Fable Valley lies within the Dark Canyon WSA. In the proposed action, it states that travel [motorized] in a WSA would only be allowed on designated ways.

Indian Creek and Arch Canyon have a Tentative Classification of *Recreational*. Under the WSRA, the management objective for *Recreational* river areas includes Public Use and Access listing "Recreation use including, but not limited to, hiking, fishing, and boating is encouraged in wild river areas to the extent consistent with the protection of the river environment."

Public use and access may be regulated and distributed where necessary to protect and enhance scenic river values". The proposed action states that "water/supply drops and camping would be done at a minimum of 200 feet from natural flowing creeks and streams, and a minimum of 600 feet from seeps, springs and developed water sources (i.e.: stock tanks, guzzlers, flowing wells, etc.)."

The ORVs are addressed under the Cultural, Wildlife/Fish, Vegetation/Ecological, and Recreation write-ups. The WSR scenic ORV for Dark Canyon would not be impacted by the use levels in this proposed action because the proposed action of hiking and camping will not change the rugged terrain, walls of the canyons, or the naturalness of the area as seen in soil, rock color, slowing water, and diverse vegetation.

4.2.1.5 Resource 5: Fish and Wildlife (Including Special Status Species):

Mule Deer

Wilderness Quest would be using areas designated as crucial deer winter range during the winter months. The areas that would primarily overlap with deer use would be in Beef Basin and on the Dark Canyon Plateau. With these areas and the proposed increase in user days, there would be an associated increase in the amount of human / wildlife interactions. With this interaction, deer would use more energy to leave areas that people are hiking or camping in and would avoid these areas that typically have little human use during the winter months.

Disturbance often causes animals to avoid some areas within preferred habitat. As a result, this prevents use of higher quality habitats and forces animals into less preferred or lower quality habitats. Such shifts, particularly if repeated, could result in adverse impacts to the energy balance of individual deer and ultimately decrease population productivity, especially in winter ranges (de Vos, Jr. et al. 2003).

This increase in use of an area that typically is not used by people in the winter could have indirect impacts. Depending on the time of year and availability of cover, mule deer avoid zones approximately 100 meters – 400 meters (328-1,312 feet) from roads or human presence (Ward et al. 1980), and change behavioral and habitat use patterns when disturbed (Yarmoloy et al. 1988). Freddy et al. (1986) also found that deer avoid areas used by humans walking, especially if they are disturbed repeatedly. Although mitigation measures for water drops and camping is built into the proposed action, groups camping there in the winter would still fragment the habitat for the deer.

Desert Bighorn Sheep

The increase in use by Wilderness Quest would cause an associated increase in the amount of sheep and human interactions. The bighorn sheep habitat they are proposing to use is the Red Canyon and White Canyon areas. These areas would be used in the spring and fall as a transition area. The seasons coincide with the crucial bighorn sheep lambing and rutting (mating) seasons, which are times when sheep are most sensitive to disturbance; reserves are heavily relied upon, and may indirectly decrease population productivity. Research has shown that some human activities are detrimental to bighorn, causing sheep physiological stress, and also causing them to abandon suitable habitat (Etchberger et al. 1989).

As a result of certain mitigation measures being built into the proposed action and stipulations attached to the permit (see Appendix B, C, and D), water/supply drops and camping would be done at a minimum of 200 feet from natural flowing creeks and streams, and a minimum of 600 feet from seeps, springs and developed water sources (i.e.: stock tanks, guzzlers, flowing wells, etc.) and groups would not be camping along the talus slopes. This would reduce the direct and indirect impacts to sheep, even though it doesn't reduce the amount of sheep and human interactions and disturbances. Avoidance of talus slopes allow for sheep to have contiguous habitat that sheep prefer to utilize. Wilderness Quest is also currently performing service projects with the guidance of the BLM biologist to clean and fix developed springs for bighorn sheep to ensure wildlife can utilize these water sources. These service projects would continue to benefit the bighorn sheep.

Raptors

Loss and fragmentation of raptor habitat often accompany industrial, transportation, municipal, recreational and other developments (Romin and Muck 2002). Human disturbances near nest sites have resulted in the abandonment of the nest; high nestling mortality due to overheating, chilling or desiccation when young are left unattended; premature fledging; and ejection of eggs or young from the nest (Bent 1938, Boeker and Ray 1971, Call 1979, Postovit and Postovit 1987). Raptors which successfully nest during a disturbance may abandon the nesting territory the year following the disturbance. Responses to nesting raptors to human disturbances are generally determined by the type, duration, magnitude, noise level, and timing of activity relative to nesting phenology (Suter and Jones 1981, Richardson and Miller 1997).

As a result of mitigation measures and stipulations attached to the permit, disturbance to raptors would be minimal. The "Leave No Trace" methods would reduce the impacts to vegetation and rodent habitat, therefore not reducing the prey population for raptors. Avoidance of any known or found nest sites at all times and leaving areas when raptors are displaying defense behaviors would reduce and minimize the amount of human disturbance to raptors.

Bald Eagle

Human disturbances may constitute a threat to wintering eagle populations by causing displacement to areas of lower human activity (Brown and Stevens 1997). Human disturbances may also interfere with foraging behavior of eagles (Mathisen 1968, Stalmaster 1976). As a result of mitigation measures built into the proposed action and stipulations attached to the permit, disturbance to eagles would be minimal. The proposed action would not reduce food sources (carion) or roosting sites. There would be avoidance of any known or found roosting or nest sites and groups would leave areas when eagles are present or displaying defense behaviors. These practices would reduce and minimize the amount of human disturbance to eagles.

Mexican Spotted Owl

Although the effects of camping on spotted owls have not been studied, disruption of nesting, roosting, and foraging activities is a distinct possibility (USDI 1995). The proposed 14 people per group, camping in a nest grove or within foraging habitat, may cause owls to temporarily or permanently leave their nest sites or avoid preferred foraging areas. Most spotted owls appear to be relatively undisturbed by small groups (≤ 12 people) of hikers passing nearby (USDI 1995). The potential of hikers to disturb owls is probably greatest when hiking is concentrated in narrow canyon bottoms occupied by nesting or roosting owls. Canyons with the highest potential of MSO use currently of concern with Wilderness Quest use would be Fable Valley, Dark Canyon and its associated canyons, and Arch Canyon.

Designated Critical Habitat and Potential Habitat for Mexican Spotted Owls

Of the four constituent elements for canyon habitat (cooler-moist, stringers of upland trees/crevices, litter/woody debris, and riparian woody vegetation), the two primary ones meeting the nesting/roosting requirements of spotted owls in southern Utah are cooler canyons with crevices for nesting. Consequently, Wilderness Quest use would have no direct impact (destruction or adverse modification) on these primary constituent elements or other canyons outside of the designated critical habitat that may be potentially suitable for owls. Additionally, the "Leave No Trace" techniques that would be implemented would help mitigate any impacts to MSO habitat or habitat for their associated prey species.

Southwestern Willow Flycatcher

Hiking from one spot to another and crossing through a riparian area may temporarily cause a bird to leave an area. It is anticipated that the increase use of riparian areas will increase the risk of vegetation/habitat loss/degradation due to trampling from repeated use, building of fires, and vegetative use. With the proposed camping distances from water sources and the use of the "Leave No Trace" techniques, there would not be any measurable impact to flycatchers or their associated riparian habitat while they are camping. The exception to this would be in a narrow valley or canyon, such as Fable Valley. The noise associated with camping with a group of fourteen in a narrow canyon may cause stress to the birds and cause them to leave the canyon and possibly a nest.

4.2.1.6 Resource 6: Vegetation:

Bridger Jack Mesa

Access to the top of Bridger Jack Mesa is restrictive (options include use of two narrow stock trails, and/or technical climbing). Minimal access, coupled with no recent livestock use (not since 1957), has allowed for establishment of a near-relict vegetation community on the mesa top, which defines the vegetative Bridger Jack Mesa ACEC designation. The vegetative community is important for study and comparison purposes to design management for pinyon-juniper woodlands and sagebrush-grass communities in other parts of the Colorado Plateau, and is, therefore, more than locally significant. It is anticipated that increased use of this area by the wilderness therapy groups, if permitted, would impact the near-relict integrity of the associated vegetative community through disturbance and invasive species establishment.

Fable Valley

Fable Valley offers a diversity of both plant and animal species, including the presence of rare communities. There is an array of ecological values including a unique riparian habitat that allows for the cohabitation of two federally listed T & E avian species. It is anticipated that increased use of this area will increase the risk of vegetation/habitat loss/degradation due to fire and vegetative use.

Beef Basin

Beef Basin is characterized by rough, broken terrain surrounding sagebrush-grass parks and pinyon-juniper woodland, thereby providing crucial habitat for deer. Shrub species, such as sagebrush, are critical big game habitat elements, and are very susceptible to loss by fire. It is anticipated that increased use of this area would increase the risk of vegetation/habitat loss/degradation due to user caused wildfire.

4.2.1.7 Resource 7: Woodlands:

The woodland community includes such species as pinyon pine, juniper, and cottonwood. In the canyon areas, especially Dark Canyon and Fable Valley, these vegetative species provide important habitat for wildlife species, including Mexican spotted owl and Southwestern willow flycatcher. Other, non-avian, wildlife species also rely on woody debris for their habitat needs. Loss of woodland habitat and available woodland product (firewood) in Dark Canyon, and associated spur canyons, and Fable Valley is an issue of concern, due to current level and, expected increase in level, of recreational use. The increasing use in these areas, coupled with continued use of the limited woodland products, would diminish wood availability, thereby negatively impacting wildlife habitat and the overall wood composition of the area.

4.2.1.8 Resource 8: Recreation:

Mule Canyon is located within the Cedar Mesa Special Recreation Management Area (SRMA), where the numbers of users are restricted to 12 people per group, per day. Wilderness Quest has proposed a maximum number of 14 people in each group. Therefore, it is not possible to successfully accommodate their request to operate in this area.

In general, by increasing the numbers of groups from four to seven, the likelihood of recreation related user conflict would increase. However, due to the mobility of these groups and their efforts to keep out of plain sight, the chances for significant, long-term conflicts would be greatly diminished and are therefore unlikely. Impacts to recreation resources and experiences would be mitigated through education. Furthermore, within the winter operating areas (see map 1), conflicts would be minimal because these areas are seldom visited by the general recreating public during these times of year. During the summer season, primary use by Wilderness Quest would occur on the Manti-La Sal National Forest, which would alleviate recreation related conflicts within areas managed by the MFO.

Spring and fall are typically the busiest times of year for recreation on lands managed by the MFO. The Bridger Jack Mesa and Indian Creek areas receive very high levels of spring, summer, and fall recreation use. By adding these proposed areas of operation, it is expected that general recreation users would feel displaced, and their experiences could become diminished. For other proposed operating areas during spring and fall, Wilderness Quest's operational goals of staying out of plain sight and away from the general recreating public would significantly reduce negative user conflicts.

4.2.1.9 Resource 9: Wilderness:

WSA Analysis -The BLM inventoried for wilderness in its original 1980-1983 Wilderness Inventory to decide what areas should be designated as Wilderness Study Areas. Some of these areas lie within the proposed operating area (see map 5). As previously described, other wilderness users could encounter Wilderness Quest groups. However, because they make every effort to generally stay out of plain sight, and are proposing to use these areas during typically slower use seasons, encounters/conflicts would be minimized. Overall, actions taken by Wilderness Quest would not impair Congresses' ability to designate these WSAs as Wilderness in the future. Furthermore, by practicing LNT techniques, Wilderness Quest would be operating in a manner consistent with Wilderness travel.

4.2.1.10 Resource 10: Wilderness Characteristics:

Although the term "wilderness characteristics" was not specifically mentioned in the San Juan RMP/EIS, many of the concepts of wilderness characteristics (i.e., protecting and improving opportunities for primitive recreation, preserving wildlife habitats, preserving soils resources, protecting scenic values, preserving natural succession of plant communities) were all substantially analyzed in the alternatives of the EIS as shown by the following references in the land use planning documents:

Pg. 1-4 and 1-5 of the Proposed Resource Management Plan, Final Environmental Impact Statement Volume 1, 1987:

Alternative C:

- Use of the public lands for recreation by maintaining the spectrum of recreational opportunities now present;
- Production of wildlife habitat and protection of specialized wildlife habitats;
- Preserving watershed values through protection of certain soils resources;
- "Favors recreation use, particularly primitive backcountry use."

Alternative D:

- Preserving natural succession of plant communities by minimizing surface disturbance;
- Protection of cultural resources beyond the requirements of law;
- Increasing the extent of areas available for primitive uses.

Alternative E (The Preferred Alternative):

- Protecting the opportunity for primitive and semi primitive recreation uses in certain areas;
- Protecting scenic values in certain areas;
- Protecting certain wildlife habitat areas;
- Preserving watershed values through protection of certain soils resources;
- Otherwise making public lands available for the production of mineral resources;
- Protecting scenic values in certain areas.

Pg. 2-15 and 2-17 of the Draft Resource Management Plan, Environmental Impact Statement, 1986

Alternative D:

"In certain areas, all surface disturbances would be minimized and the land managed to let natural succession of plant communities predominate over human activities. These are areas of at least 10,000 acres, where human caused imprints now present are confined to less than 20 percent of the total area...).

The new information concerning wilderness characteristics, including the information provided by the public in proposed wilderness bills, including the UWC proposal, does not require additional NEPA analysis because: (1) significant changes in resource conditions relating to primitive and unconfined recreation have not occurred; and (2) the existing NEPA record adequately assesses impacts on those resources which contribute to naturalness.

BLM's Instruction Memorandum (IM) 2003-275-Change 1 addresses the issue of wilderness characteristics in land use plans. The IM defines wilderness *characteristics* as features of the land associated with the concept of wilderness. The IM then describes these features as naturalness, and outstanding opportunities for solitude and/or primitive and unconfined recreation. According to the IM:

"Lands and resources exhibit a high degree of naturalness when affected primarily by the forces of nature and where the imprint of human activity is substantially unnoticeable. BLM has authority to inventory, assess, and/or monitor the attributes of the lands and resources on public lands, which, taken together, are an indication of an area's naturalness. These attributes may include the presence or absence of roads and trails, fences and other improvements; the nature and extent of landscape modifications; the presence of native vegetation communities; and the connectivity of habitats."

IM-2003-275, Change 1, lists a range of attributes which contribute to naturalness, including various natural, biological, and cultural resources-such as air, soil, water, vegetation, cultural, paleontological, visual, special status species, fish and wildlife. All of these attributes were analyzed in the Draft RMP-EIS under the various alternatives.

IM 2003-275, Change 1, also advises BLM on how to evaluate new information contained in public wilderness proposals, but emphasizes that to be significant, the new information must relate to environmental concerns and bearing on the proposed action or impacts *that have not previously been analyzed* (emphasis added). The emphasis, therefore, is on whether or not the new information suggests that significant changes in land and resource conditions have occurred since the plan/EIS or other NEPA document was completed.

Due to the non-surface disturbing actions taken by Wilderness Quest, Congress would not be prevented, now or in the future, from passing House of Representatives bill 1796 and Senate Bill 639.

As described in the recreation sections of this EA, there could be potential impacts to opportunities for solitude, if the general recreating public comes into contact with Wilderness Quest groups. However, due to the cross-country pattern of use that they implement, the chances for user conflicts are greatly diminished and are highly unlikely. Therefore, these actions proposed by Wilderness Quest are not likely to impact naturalness or other users' opportunities for solitude and/or primitive recreation. Overall, actions taken by Wilderness Quest would not impair Congresses' ability to designate these WSAs as Wilderness in the future. Furthermore, by practicing LNT techniques, Wilderness Quest would be operating in a manner consistent with Wilderness travel.

4.2.1.11 Resource 11: Socioeconomics:

Permitted recreation use such as that proposed by Wilderness Quest provides positive economic opportunities for San Juan County and the city of Monticello. As previously stated, each dollar generated by Wilderness Quest runs through the local economy four times, and the overall local economic benefit the company provides is currently estimated at \$3 million per year, according to Gordon Birch. The revenue generated by Wilderness Quest directly benefits the San Juan County and Monticello economies by offering employment to local residents, and through the patronage of clients to local hotels, gas stations, restaurants, etc. at their current level of operations. If they are permitted to expand to seven groups, the socio-economic impacts could, in theory, increase to approximately \$10 million. If, for example, the No-Action Alternative would be selected, San Juan County and the city of Monticello could, in theory, stand to be significantly impacted by losing as much as \$7 million from the local economy. Therefore, the positive impacts of issuing a permit, allowing increased use, would be in the best interest of San Juan County and the city of Monticello.

4.2.1.X Mitigation Measures:

In order to reduce impacts, specific mitigation measures have been created and are described in detail within section 4.2.3 (Alternative C – Mitigated Proposed Action).

4.2.1.Y Cumulative Impacts:

Areas of Critical Environmental Concern

Intensive use of the top of Bridger Jack Mesa would impact the near-relict integrity of the associated vegetative community through disturbance and invasive species establishment.

Shay Canyon Cultural ACEC will cause impacts from increased group size and frequency of campsite use. Refer to Section 4.2.1.1 for a description of the resources within the 3,560 acre ACEC. In addition, digging latrines at camps could have an adverse effect on cultural resources over the five year permit period. The nature of these impacts added over five years could range from trampling damage and soil erosion to subsurface disturbance of *in context* cultural deposits.

Cultural Resources

Refer to Section 4.2.1.2 for a description of factors and issues that could have cumulative impacts on cultural resources. Digging latrines at camps has the most potential to cause an adverse effect on cultural resources. Increasing user days in the field and frequency of camp site use will also have the potential to cause an adverse effect on cultural sites.

Native American Religious Concerns

Refer to 4.2.1.3 for a description of issues and concerns that adverse cumulative impacts will have for Native American concerns and values. Cumulative impacts on Native American traditional places for plant gathering and other traditional practices represent a concern in addition to impacts on actual cultural site locations. The proposed area of operation, 783,926 acres which represents the Area of Potential Effect (APE), would include many areas that numerous Native American Tribes visit on a regular basis for traditional and related religious purposes.

Wild and Scenic Rivers

Residual impacts that could occur even after standard operating procedures and mitigation measures are adhered to include impacts due to an emergency situation, such as a search and rescue operation where additional people and/or vehicles would be necessary, and could impact the outstandingly remarkable values, or impacts from other unforeseen situations.

Fish and Wildlife (Including Special Status Species)

The proposed increased use would impact wildlife species. Seven groups of 14 people using portions of the field office area nine months out of the year, every year, would force animals to use other areas, avoid the large groups, thereby expending more energy, and fragment their habitat. The amount of traffic and vehicles needed to support this type of operation would also increase the impacts to wildlife. Roads that are used more frequently cause an increase in habitat fragmentation for wildlife than roads that are used less frequently. There would also be an increase in the amount of vehicle/animals collisions, particularly with the increase in traffic along the major roads where vehicle speeds are higher.

Vegetation

Intensive use of the top of Bridger Jack Mesa would impact the near-relict integrity of the associated vegetative community through disturbance and invasive species establishment. Fable Valley offers a diversity of both plant and animal species, including the presence of rare communities. There is an array of ecological values including a unique riparian habitat that allows for the cohabitation of two federally listed T & E avian species. It is anticipated that increased use of Dark Canyon, associated spur canyons, Fable Valley, and Beef Basin will increase the risk of vegetation/habitat loss/degradation due to fire and associated vegetative use.

Woodlands

Loss of woodland habitat and available woodland product (firewood) in Dark Canyon, associated spur canyons, and Fable Valley is an issue of concern, due to current level, and expected increase in level, of recreational use. This increasing use in these areas, coupled with continued use of the limited woodland products, would diminish wood availability, thereby negatively impacting habitat and the overall wood component of the area.

Recreation

Some of the proposed areas of operation, such as Dark Canyon are popular areas for general recreation use. Increasing Wilderness Quest's group numbers in these areas would increase overall user numbers when combined with general recreation users. However, due to Wilderness Quest's operational goals to travel and camp out of plain sight, these impacts would be greatly diminished, and thus are not considered to be significant.

Wilderness and Wilderness Characteristics

Although an increase in overall recreation user numbers would occur, actions within designated WSAs and in areas with Wilderness Characteristics are limited by the IMP to ensure that users do not impair Congresses' ability to designate these areas as Wilderness. General recreation use in the areas of operation during the winter season is very minimal.

During the spring, summer, and fall, there would be more recreation users (Wilderness Quest and general), which would create a greater overall number of users. In theory, this could cumulatively increase the chances for user conflict. However, due to nature of Wilderness Quest's operational goals to travel and camp out of plain sight, and with the emphasis placed on using LNT techniques, these impacts would be greatly diminished, and thus are unlikely.

Socioeconomics

Permitted recreation use such as that proposed by Wilderness Quest provides positive economic opportunities for San Juan County. According to the Wilderness Quest Company, each dollar generated runs through the local economy four times, and the overall local economic benefit the company provides through the proposal to increase the overall number of groups is estimated at \$10 million per year. Specifically, the revenue generated by Wilderness Quest directly benefits the San Juan County economy by offering employment to local residents, and through the patronage of clients to local hotels, gas stations, restaurants, etc. at their current level of operations (four groups). If they are permitted to operate with seven groups, the socio-economic impacts could, in theory, increase proportionally.

4.2.1.Z Monitoring and/or Compliance:

Flint knapping in the field creates artificial cultural resource sites and if done within a site location it may obscure the archaeological lithic debitage (manufacture of stone tools) record to the extent that professional analysis of prehistoric activity at the site is not analyzable from the material type debitage remains (Andrefsky, William Jr., 2001).

The practice of "gifting" at cultural resource locations, i.e. leaving objects not originally left there by the prehistoric inhabitants at the site or taking artifacts on the site surface and arranging them in "museum piles" is yet another practice of site visitors that obscures the archaeological record for professional analysis. It is a form of semi-innocent vandalism that if continued over a period of time has the potential to render the surface artifacts on the site entirely out of context. Education of site visitors would be the mechanism used to prevent this type of site impact.

The creation of a hosted archaeology position between the MFO and Wilderness Quest would provide a cultural perspective and education for the back country use and experience. It would assist BLM with obtaining important monitoring data about cultural site density, types and impacts. The incumbent of this position would also monitor, along with BLM Law Enforcement, WSA and recreational impacts, including user conflicts and would perform random compliance checks.

4.2.2 Alternative B - No Action:

Under the No Action Alternative, the BLM would not permit the proposed increase in use by Wilderness Quest. They would continue to operate as described in section 2.1 (Proposed Action) and their current levels of use (four groups at one time) would continue to be standard operating procedure until their current permit expires on 12/31/2009. They would also continue to operate in the areas depicted in Map 2. Therefore, the direct and indirect impacts would be the same as those described in Alternative A (section 4.2.1). However, impacts under this alternative would be proportionally less than the proposed action because the number of groups would remain at four, and not increase to seven.

4.2.2.X Mitigation Measures:

Mitigation measures for this alternative are attached to Wilderness Quest's current SRP (expires 12/31/2009) as stipulations (see appendix B and C).

4.2.2.Y Cumulative Impacts:

Areas of Critical Environmental Concern

Because Wilderness Quest does not currently operate within the Bridger Jack Mesa ACEC or Shay Canyon ACEC, there would be no cumulative impacts to ACECs.

Cultural Resources

Under this Alternative, impacts to cultural Resources would be less since fewer user days and groups would be involved. However, the cumulative impacts over the next 3 years would still have the potential to degrade cultural resource values within the proposed area of operation. Digging latrines would also impact a smaller area over the 3 year period, but a cumulative adverse effect from this practice as well as other issues identified in Section 4.2.1.2.

Native American Religious Concerns

Refer to Section 4.2.1.3 for a description of issues and concerns that Native American Tribes have in the operation area. Adverse cumulative impacts from latrine digging and repeated use of the same camp areas, trails and back road byways will be a concern for Native American Traditional religious practices and plant gathering.

Wild and Scenic Rivers

Residual impacts that could occur even after standard operating procedures and mitigation measures are adhered to include impacts due to an emergency situation as a search and rescue operation where additional people and/or vehicles would be necessary, and could impact the outstandingly remarkable values, or impacts from other unforeseen situations.

Fish and Wildlife (Including Special Status Species)

Cumulative impacts would be essentially the same as those discussed in section 4.2.1.Y. However, they would be proportionally less due to the lower group number (four instead of seven), less vehicle use on roads, and the reduced areas of operation. Without the use the areas that incorporate Beef Basin and Dark Canyon Plateau during the winter months in this alternative, there would be less impact to deer, especially since they would not be using any areas that are considered crucial deer winter range in the winter. There would also be less impact to MSO and its designated critical habitat since they would not be using the areas south of the Forest Service lands, particularly Arch Canyon.

Vegetation

As no permitted use would be allowed for Wilderness Quest on the top of Bridger Jack Mesa, no additional cumulative impacts are associated with this alternative. It is anticipated that continued use of Dark Canyon, associated spur canyons, Fable Valley, and Beef Basin will increase the risk of vegetation/habitat loss/degradation due to fire and associated vegetative use.

Woodlands

Loss of woodland habitat and available woodland product (firewood) in Dark Canyon, and associated spur canyons, and Fable Valley is an issue of concern, due to current level of recreational use. This continued use of the limited woodland products would diminish wood availability, thereby negatively impacting habitat and the overall wood component of the area.

Recreation

Cumulative impacts would be essentially the same as those listed in section 4.2.1.Y. However, they would be proportionally less due to the lower group numbers (four instead of seven) and the reduced areas of operation.

Wilderness and Wilderness Characteristics

Cumulative impacts would be essentially the same as those listed in section 4.2.1.Y. However, they would be proportionally less due to the lower group numbers (four instead of seven) and the reduced areas of operation.

Socioeconomics

Socioeconomic would be essentially the same as those listed in section 4.2.1.Y. However, they would be proportionally less due to the lower group numbers (four instead of seven) and the reduced areas of operation. If Wilderness Quest is permitted to continue operating with four groups instead of seven, the socio-economic impacts would, in theory, remain at their current levels.

4.2.2. Z Monitoring and/or Compliance:

If this alternative is selected, monitoring would continue only in the form of random, law-enforcement compliance inspections.

THIS SECTION INTENTIONALLY LEFT BLANK

4.2.3 Alternative C – Mitigated Proposed Action:

The impacts to resources described within the Proposed Action (Alternative A) would be mitigated under this alternative. Refer to the following sections for specific mitigation details for this alternative.

4.2.3.1 Areas of Critical Environmental Concern:

Bridger Jack Mesa

Bridger Jack Mesa ACEC (mesa top) would not be permitted for use by wilderness therapy groups; therefore, no impacts from the groups would be associated with this alternative.

Shay Canyon

Shay Canyon ACEC would not be permitted for use by wilderness therapy groups; therefore, no impacts from the groups would be associated with this alternative.

4.2.3.2 Cultural Resources:

Under the Mitigated Proposed Action Alternative, the BLM would approve the Wilderness Quest SRP exactly as described in the Proposed Action (Alternative A) with the following exceptions:

- (1) Portions of the overall Area of Operation would be removed or closed seasonally (See Map 3);
- (2) An adjustment of campsite frequency use would be made for cultural resource protection;
- (3) Cultural Resource Mitigation, Education and Monitoring;
- (4) Latrine trenches at campsites would be replaced by digging catholes;
- (5) Human waste would be removed and packed out when camps are located within ½ mile of a road.

In order to prevent impacts to cultural resources, visitation to sites must not include: “gifting”, or leaving objects on cultural sites, no flint knapping and no latrine trenching in camps. In addition, camps within ½ mile of a road must pack out human waste to a drop point for removal. The national significance of cultural sites and ways to avoid impacting cultural resources during daily activities of Wilderness Quest must be part of the educational backcountry experience. To accomplish this, and to provide the MFO with monitoring data about cultural site density, types and impacts, a 5 year Memorandum of Agreement (MOA) between the MFO and Wilderness Quest would be established for a 6 month minimum per year seasonal archaeology/general monitoring position.

(1) Reduction in Area of Operation

The MFO has one the highest density of prehistoric cultural resources of any BLM office in the United States. Based on current records there could be as many as over 100,000 individual prehistoric cultural sites and many more historic sites related to the early Anglo settlement of San Juan County, mining and cattle industry. There are several Areas of Critical Environmental Concern for Cultural Resources, one National Historic Landmark, and two National Historic Districts representing tens of thousands of acres. The areas located northeast of Arch Canyon (Summer Area) including Comb Wash, Whiskers Draw and the Indian Creek Corridor (Summer Area) have a variety of Nationally Significant cultural resources such as prehistoric road systems, towers and pueblos with Chaco Canyon style architecture in high density located in areas likely to be adversely impacted by the Mitigated and Proposed Action Alternatives (Cameron, Catherine M., 2001; Lekson, Steven H., 1999; Kanter, John and N. Mahoney, 2000). The Butler Wash National Historic District is located in one of the proposed Summer Areas.

The Shay Canyon Cultural ACEC is located in the Indian Creek Canyon unit. This ACEC was designed to protect cultural and paleontological values as well as aquatic habitat. Rock art cultural sites covering the walls of Shay Canyon are the significant cultural resources along this portion of the Indian Creek drainage. Native Americans, who have visited these sites, recognize images that relate to their migration history. Dinosaur tracks exposed in the Chinle Formation in the Shay Canyon drainage represent one of only three track ways of late Triassic theropods (*Atreipus*) and the only track way of this type found in Utah (DeCourten, F. 1998).

Cultural resources in the wider area of Indian Creek represent the interface between two prehistoric groups: Anazazi and Fremont. This interface is well represented in the rock art motifs, ceramics and baskets. The area provides an opportunity for cultural resource scientific research, and paleontology study. This area is already under recreation pressure from overflow campers from the Canyonlands National Park and from rock climbers and OHV users. Added pressure from increased commercial use may be damaging to a wide perspective of cultural and paleontology values. Therefore, these areas should be removed from consideration.

(2) Reduction in individual dispersed campsite frequency of use

The second cultural issue is the frequency of overnight campsite use. A campsite visitation frequency of every two weeks will create impacts and potentially adverse impacts (36 CFR 800.5 (1), see Appendix E) to sensitive cultural sites both known and unknown. Therefore, to reduce disturbances from direct, indirect and cumulative human impacts from over-use of the same campsite such as rill erosion created by campsite loss of groundcover, and other effects on areas with arid silted soils reduction in frequency of dispersed campsites is recommended to reduce impacts to cultural resources (Jennings, Jessie D., 1966; Jennings, Jessie D., 1998). Therefore, the Mitigated Proposed Action Alternative would allow the use of dispersed campsites not more than 1 time every 3 months, except in cases of inclement weather or during emergencies.

(3) Cultural resource mitigation and monitoring

Flint knapping in the field creates artificial cultural resource sites and if done within a site location it may obscure the archaeological lithic debitage (manufacture of stone tools) record to the extent that professional analysis of prehistoric activity at the site is not analyzable from the material type debitage remains (Andrefsky, William Jr., 2001). The practice of “gifting” at cultural resource locations (i.e. leaving objects not originally left there by the prehistoric inhabitants at the site or taking artifacts on the site surface and arranging them in “museum piles”) is yet another practice of site visitors that obscures the archaeological record for professional analysis. It is a form of semi-innocent vandalism that if continued over a period of time has the potential to render the surface artifacts on the site entirely out of context. Education of site visitors is the mechanism to prevent this type of site impact. The creation of a hosted archaeology/general monitoring position between the MFO and Wilderness Quest would provide a cultural perspective and education for the back country experience and assist BLM with obtaining monitoring data about cultural site density, types and impacts.

(4) Latrine trenches at campsites would be replaced by digging catholes

Latrine trenches at camp sites would be replaced by digging catholes. Refer to Section 4.2.1.2 Issue 3: digging latrines. By removing latrine trenches, a no adverse effect would result for cultural resources as defined in 36 CFR 800.5 (1) (see appendix E).

(5) Human waste would be removed and packed out when camps are located within ½ mile of a road

Packing out human waste when within ½ mile of a road will further reduce impacts to cultural resources by eliminating the need for either latrine trenches or catholes. This will also result in a no adverse effect for cultural resources as defined in 36 CFR 800.5 (1) (see appendix E).

4.2.3.3 Native American Religious Concerns:

Since this alternative provides mitigation for impacts to cultural resources as well as the landscape use, it is expected that Native Americans would not have as many issues or concerns. However, communication and consultation with Native American Tribes that have expressed an interest in being informed about changes to cultural resources in the MFO area would continue over the permit term.

4.2.3.4 Wild and Scenic Rivers:

The WSR eligible segments of Indian Creek and Arch Canyon are listed as not permitted under this Alternative. Therefore, there would be no impacts to these WSRs.

4.2.3.5 Fish and Wildlife (Including Special Status Species):

Mule Deer

The removal of the Beef Basin and Dark Canyon Plateau operating areas during the winter season would reduce the amount of impacts to deer. Winter is the season when they are most sensitive and weak, and with the elimination of stress and habitat fragmentation in the winter, it provides the deer with a better chance of surviving the winter and being more productive in the spring.

There would still be some associated impacts to deer because of the increased use (from four to seven groups) by Wilderness Quest. There would be an increase in interaction between deer and people. Disturbance often causes animals to avoid some areas within preferred habitat. As a result, this prevents use of higher quality habitats and forces animals into less preferred or lower quality habitats and fragments their habitat.

Desert Bighorn Sheep

Impacts would be the same as those discussed in section 4.2.1.5.

Raptors

The type of impacts would essentially be the same as those discussed in section 4.2.1.5. There would be a decrease in the amount of areas Wilderness Quest would be using, and therefore there would be an associated decrease in the number of raptors and acreage of habitat being impacted.

Bald Eagle

The type of impacts would essentially be the same as those discussed in section 4.2.1.5. There would be a decrease in the amount of areas Wilderness Quest would be using, therefore an associated decrease in the number of eagles and acreage of habitat being impacted.

Mexican Spotted Owl

With the removal of the area that includes Arch Canyon and the camping mitigation and closure of Dark Canyon, the impacts to MSOs would be reduced. There would still be the impacts to unknown MSOs from the groups camping and hiking as discussed in section 4.2.1.5.

Designated Critical Habitat and Potential Habitat for Mexican Spotted Owls

The type of impacts would essentially be the same as those discussed in section 4.2.1.5. The decrease in acreage of designated critical habitat that would be used by Wilderness Quest and the type of use that would be permitted (the Dark Canyon camping mitigation and closure) would reduce the amount of impacts in this alternative.

Southwestern Willow Flycatcher

The type of impacts would essentially be the same as those discussed in section 4.2.1.5. There would be a decrease in the amount of areas Wilderness Quest would be using, therefore an associated decrease in the number of flycatchers and acreage of habitat being impacted. With the closure of Fable Valley to camping, this would ensure that birds are only temporarily disrupted from hiking through an area, rather than hours at a time with the camping.

4.2.3.6 Vegetation:

Removal of Bridger Jack Mesa from Operating Area

Access to the top of Bridger Jack Mesa is restrictive (options include use of two narrow stock trails, and/or technical climbing). Minimal access, coupled with no recent livestock use (not since 1957), has allowed for establishment of a near-relict vegetation community on the mesa top, which defines the vegetative Bridger Jack Mesa ACEC designation. The vegetative community is important for study and comparison purposes to design management for pinyon-juniper woodlands and sagebrush-grass communities in other parts of the Colorado Plateau, and is, therefore, more than locally significant. It is anticipated that increased use of this area, if permitted, would impact the near-relict integrity of the associated vegetative community through disturbance and invasive species establishment. Therefore, this area should be removed from consideration.

Fable Valley

Fable Valley offers a diversity of both plant and animal species, including the presence of rare communities. There is an array of ecological values including a unique riparian habitat that allows for the cohabitation of two federally listed T & E avian species.

The multi-terraced canyon walls are adequate for nesting and roosting of the threatened Mexican Spotted Owl, while the numerous small open pools and discontinuous flows fed by subsurface springs and seeps provide for a year round supply of water.

The associated willow-dominated riparian areas include over 17 vegetative species, with few exotic tamarisk, providing habitat for the endangered southwestern willow flycatcher, and 27 upland vegetative species. The Monument milkvetch (*Astragalus monumentalis*) and the Kachina daisy (*Erigeron kachinensis*), both sensitive species, may also occur in the area.

It is anticipated that increased use of this area increases the risk of vegetation/habitat loss/degradation due to fire and vegetative use. Therefore, in Fable Valley, gathering of wood for fires would not be allowed, and use of stoves and fire blankets would be required.

Beef Basin

Beef Basin is characterized by rough, broken terrain surrounding sagebrush-grass parks and pinyon-juniper woodland, thereby providing crucial habitat for deer. Shrub species, such as sagebrush, are critical big game habitat elements, and are very susceptible to loss by fire.

It is anticipated that increased use of this area would increase the risk of vegetation/habitat loss/degradation due to fire. Therefore, gathering of wood for fire would not be allowed, and use of stoves and fire blankets would be required.

4.2.3.7 Woodlands:

The woodland community includes such species as pinyon pine, juniper, and cottonwood. In the canyon areas, especially Dark Canyon and Fable Valley, these vegetative species provide important habitat for wildlife species, including Mexican spotted owl and Southwestern willow flycatcher. Other, non-avian, wildlife species also rely on woody debris for their habitat needs.

Loss of Woodland habitat

Loss of woodland habitat and available woodland product (firewood) in Dark Canyon is an issue of concern, due to current level and, expected increase in level, of recreational use in Dark Canyon and associated spur canyons. Therefore, no gathering of wood for fires would be allowed in Dark Canyon and/or associated spur canyons. Groups would be required to use stoves and fire blankets.

Near Relict Vegetation Community

The Bridger Jack Mesa Top contains woodlands and a near relict vegetation community. However, because the Bridger Jack Mesa ACEC (mesa top) would not be permitted for use by wilderness therapy groups, there would be no impacts associated with this alternative.

Fire Concerns

Due to its remote location, it is the contention of the ID Team that if a fire were to occur due to permitted recreation use by Wilderness Quest on Bridger Jack Mesa, it would be very difficult to control and fight, thus severely impacting the near relict vegetation community. Therefore, it should be removed from consideration.

4.2.3.8 Recreation:

Removal of Bridger Jack Mesa from Operating Area

From a recreation perspective, Bridger Jack Mesa offers a remote experience and outstanding opportunities for solitude due to its limited access. The current RMP revision shows that this mesa is located within the Indian Creek SRMA. Once Recreation Management Zones are created within a future activity level plan, it is expected that Bridger Jack Mesa would be considered as a Primitive or Backcountry Zone, and would thus be managed in such a manner as to provide a remote experience through Benefits Based Management Practices. Therefore, it should be removed from consideration.

Removal of Indian Creek Canyon from Operating Area

Indian Creek Canyon is a world-class rock climbing destination, and receives heavy use from both climbers and general recreation users on a year-round basis. Therefore, it is likely that these recreational users' experiences would be severely impacted by the feeling of displacement, which could occur if Wilderness Quest operated in this area during peak recreation periods. Therefore, this area should be removed from consideration.

Removal of Mule Canyon from Operating Area

Because Mule Canyon is located within the Cedar Mesa Special Recreation Management Area (SRMA), and numbers of users are restricted, this area should be removed from further consideration. Current group limits are 12 people per group, per day. Wilderness Quest has proposed a maximum number of people in each group to be 14. Therefore, it is not possible to successfully accommodate their request, and would not be in conformance with the current Resource Management Plan (San Juan RMP 1991). This poses other problems as well, such as displacing other recreation users from this canyon, thus reducing overall recreation opportunities to the general recreating public. Therefore, this area should be removed from consideration.

4.2.3.9 Wilderness:

Under this Alternative, potential conflicts would be removed from the Bridger Jack Mesa WSA and Mule Canyon WSA because groups would not be permitted to operate in these areas. Other than these changes, impacts to Wilderness would be the same as those described in section 4.2.1.9.

4.2.3.10 Wilderness Characteristics:

Under this Alternative, impacts to Wilderness Characteristics would be the same as previously described in section 4.2.1.10.

4.2.3.11 Socioeconomics:

Although the total area of operation would be reduced under this alternative, the total area of reduction would not impact the number of groups (total of seven) proposed under this alternative. Therefore, the direct socioeconomic impacts to the local economy would remain essentially the same as that discussed in section 4.2.1.10 of the Proposed Action (Alternative A).

4.2.3.X Mitigation Measures:

Because this alternative is listed as the Mitigated Proposed Action, mitigation measures are inherently built in, and thus no additional measures are included other than the stipulations listed in Appendix B, C, and D.

4.2.3.Y Cumulative Impacts:

Areas of Critical Environmental Concern

Because the Bridger Jack Mesa ACEC and Shay Canyon ACEC would be not be permitted for use by Wilderness Quest under this alternative, there would be no cumulative impacts to ACECs.

Cultural Resources

The mitigated measures described in Section 2.4 to protect cultural resources would reduce the cumulative effects to a no adverse effect level as described in 36 CFR 800.5 (1) Appendix E. Refer to Section 4.2.1.2 for issues that would have a cumulative adverse effect on cultural resources over the five year permit period.

Native American Religious Concerns

Refer to Section 4.2.2.3 for analysis of reduced impacts. Communication with Tribes concerning the results of monitoring activities will continue over the five year permit period.

Wild and Scenic Rivers

Residual impacts that could occur even after standard operating procedures and mitigation measures are adhered to include impacts due to an emergency situation as a search and rescue operation where additional people and/or vehicles would be necessary, and could impact the outstandingly remarkable values, or impacts from other unforeseen situations.

Fish and Wildlife (Including Special Status Species)

Cumulative impacts would be essentially the same as those discussed in section 4.2.1.Y. By removing some areas from use, and/or mitigating the use in areas that are crucial for deer in the winter and used by MSOs and flycatchers, there would be a reduction in the amount of cumulative impacts to wildlife.

Vegetation

As no permitted use would be allowed for Wilderness Quest on the top of Bridger Jack Mesa, no cumulative impacts are associated with this alternative. The risk of vegetation/habitat loss/degradation due to fire and vegetative use due to current level and expected increase in level of recreational use in Dark Canyon, associated spur canyons, Fable Valley, and Beef Basin, is not anticipated to have significant cumulative impacts, as the potential for loss of woodland associated habitat and threat of human-caused fire in Dark Canyon, and associated spur canyons, and Fable Valley has been mitigated.

Woodland

No cumulative impacts associated with Wilderness Quest are identified for this alternative as the potential for loss of woodland habitat and available woodland product (firewood) in Dark Canyon, and associated spur canyons, and Fable Valley has been mitigated.

Recreation

Cumulative impacts to recreation would be the same as those described in section 4.2.1.Y with the exception of Bridger Jack Mesa, Mule Canyon, and Indian Creek Canyon, which would be removed from the operating area under this alternative. Therefore, no cumulative impacts would occur in these areas.

Wilderness and Wilderness Characteristics

Cumulative impacts to Wilderness and Wilderness Characteristics would be the same as those described in section 4.2.1.Y, with the exception of the Bridger Jack Mesa WSA and Mule Canyon WSA, which would be removed from the operating area under this alternative.

Socioeconomics

Cumulative impacts to socioeconomics would be the same as those described in section 4.2.1.Y.

4.2.1.Z Monitoring and/or Compliance:

Monitoring and compliance would be the same as described in section 4.2.1.Z.

5.0 CONSULTATION AND COORDINATION:

5.1 Introduction:

The following is a list of all Persons, Agencies and Organizations consulted for the purposes of producing this EA.

5.2 Persons, Groups, and Agencies Consulted:

Bureau of Land Management Utah State Office
Bureau of Land Management Moab Field Office
Utah Division of Wildlife Resources
U.S. Fish and Wildlife Services
Utah State Historic Preservation Office
The Hopi Tribe Cultural Preservation Office
Navajo Nation Historic Preservation Office
Dennehotso Navajo Chapter
Navajo Mountain Navajo Chapter
Mexican Water Navajo Chapter
Oljato Navajo Chapter
Red Mesa Navajo Chapter
Aneth Navajo Chapter
Teechnospos Navajo Chapter
Pueblo of Zuni Heritage and Preservation Office
White Mesa Ute Council
Ute Mountain Ute Tribe
The Pueblo of Zia
The Pueblo of Acoma Historic Preservation Office
Pueblo of Laguna
Pueblo of Santa Clara Office of Cultural Preservation

5.3 Summary of Public Participation:

The public was notified that the MFO would be analyzing Wilderness Quest's proposed action, via the Electronic Notification Bulletin Board (ENBB) on June 22, 2005. In addition, a public comment period will be offered between October 11, 2006 and November 10, 2006. All comments should be submitted, in writing, to:

Bureau of Land Management – Monticello Field Office
P.O. BOX 7 435 North Main Street
Monticello, UT 84535
Attention: Brad Colin

5.4 List of Preparers (Monticello BLM Field Office):

Sandra Meyers	Field Office Manager
Nick Sandberg	Assistant Field Office Manager
Gary Torres	NEPA/Planning Specialist
Brad Colin	Outdoor Recreation Planner (Project Lead)
Scott Berkenfield	Outdoor Recreation Planner
James Carter	Archaeologist
Nancy Shearin	Archaeologist
Tammy Wallace	Wildlife Biologist
Summer Schulz	Range Mgt. Specialist
Paul Curtis	Range Mgt. Specialist
Todd Berkenfield	Planning Specialist
Jeff Brown	Hazardous Wastes
Ted McDougall	Geology/Mineral Resources
Maxine Deeter	Lands/Access

6.0 REFERENCES/GLOSSARY:

6.1 References Cited:

- Andrefsky, William Jr. 2001. *Lithic Debitage Context, Form, Meaning*. The University of Utah Press. Salt Lake City, Utah. Pp. 32-173.
- Bent, A.C. 1938. Life histories of North American birds of prey, Part 2. U.S. National Museum Bulletin. No. 170. Smithsonian Inst., Washington, D.C. 482pp.
- Boeker, E.L. and T.D. Ray. 1971. Golden eagle population studies in the southwest. *The Condor* 73:463-467.
- Brown, B.T. and L.E. Stevens. 1997. Winter bald eagle distribution is inversely correlated with human activity along the Colorado River, Arizona. *J. Raptor Res.* 31(1):7-10.
- Bureau of Land Management (BLM), 1991. San Juan Resource Management Plan Record of Decision and Rangeland Program Summary for the San Juan Resource Area Moab District, Utah.
- Call, M. 1979. Habitat management guides for birds of prey. U.S. Dep. Inter. Bur. Land Manage. Tech. Note 338. Denver, CO. 70pp.
- Cameron, Catherine M. 2001. Pink Chert, Projectile Points, and the Chacoan Regional System. *American Antiquity*: Vol 66, Nu. 1, pp. 79-102.
- Cordell, L. S., 1997. *Prehistory of the Southwest*. 2nd ed. Academic Press, San Diego.
- Cuch, Forrest S. (ed.) 2000. *A History of Utah's American Indians*. Utah Division of Indian Affairs and the Utah Division of State History. Salt Lake City, Utah.
- DeVos, Jr. J.C, M.R. Conover, and N.E. Headrick. 2003. *Mule Deer Conservation: Issues and Management Strategies*. Berryman Institute Press, Utah State University, Logan.
- Etchberger, R.C., P.R. Krausman, and R. Mazaika. 1989. Mountain sheep habitat characteristics in the Pusch Ridge Wilderness, Arizona. *Journal of Wildlife Management* 53:902-907.
- Fitzgerald, J.P., C.A. Meaney, and D.M. Armstrong. 1994. *Mammals of Colorado*. Denver Museum of Natural History, and University Press of Colorado. Denver, Colorado.
- Freddy, D.J., W.M. Bronaugh, and M.C. Fowler. 1986. Responses of mule deer to disturbance by persons afoot and snowmobiles. *Wildlife Society Bulletin* 14:63-68.
- Gieb, Phil R. and D. Davidson. 1994. Anasazi Origins: A Perspective from Preliminary Work at Old Man Cave. *Kiva* 60 (2): 191-202.
- Geib, Phil R. 1996. Glen Canyon Revisited. Anthropological Papers No. 119. University of Utah Press, Salt Lake City.
- Grayson, Donald K. 1993. *The Desert's Past: A Natural Prehistory of the Great Basin*. Smithsonian Institution Press, Washington, D. C.
- Jennings, Jessie D. 1966. Glen Canyon: A Summary (Glen Canyon Series Number 31). Anthropological Papers Number 81, Department of Anthropology, University of Utah. Salt Lake City, Utah.

- Jennings, Jessie D. 1978. Prehistory of Utah and the Eastern Great Basin. Anthropological Papers Number 98, University of Utah Press, Salt Lake City, Utah.
- Jennings, Jesse D. 1998. *Glen Canyon An Archaeological Summary*. The University of Utah Press, Salt Lake City, Utah
- Kantner, John and Nancy M. Mahoney. 2000. Great House Communities Across the Chacoan Landscape. Anthropological Papers of the University of Arizona Number 64. The University of Arizona Press, Tucson.
- Lekson, Stephen H. 1999. *The Chaco Meridian Centers: of Political Power in the Ancient Southwest*. AltaMira Press, Walnut Creek, California
- Maryboy, Nancy and David Begay. 2000. The Navajos. In *A History of Utah's American Indians*. Utah Division of India Affairs and the Utah Division of State History, Salt Lake City, Utah.
- Mathisen, J.E. 1968. Effects of human disturbance on nesting bald eagles. *J. Wildl. Manage.* 32:1-6.
- McPherson, Robert S. 1995. *A History of San Juan County*. Utah State Historical Society, Salt Lake City, Utah.
- Postovit, H.R. and B.C. Postovit. 1987. Impacts and mitigation techniques. Pages 183-2134 in B.A. Giron Pendleton, B.A. Millsap, K.W. Cline, and D.M. Bird, eds. *Raptor management techniques manual*. Natl. Wildl. Fed., Washington, D.C. 420pp.
- Reed, Paul F. (ed.) 2000. *Foundations of Anasazi Culture: The Basketmaker-Pueblo Transition*. The University of Utah Press, Salt Lake City, Utah.
- Richardson, C.T. and C.K. Miller. 1997. Recommendations for protecting raptors from human disturbance: a review. *Wildl. Soc. Bull.* 25(3):634-638.
- Romin, Laura A. and J.A. Muck. 2002. Utah Field Office guidelines for raptor protection from human and land disturbances. U.S. Fish and Wildlife Service, Utah Field Office.
- Shackleton, D.M., C.C. Shank, and B.M. Wikeem. 1999. Rocky Mountain and California bighorns. Pages 78-138 in *Mountain sheep of North America*. Valdez, R. and P.R. Krausman. 1999. The University of Arizona Press Tucson, Arizona.
- Sogge, M.K., R.M. Marshall, S.J. Sferra, and T.J. Tibbits. 1997. A Southwestern Willow Flycatcher natural history summary and survey protocol. Technical report. NPS/NAUCPRS/NRTR-97/12.
- Sogge, M.K. and R.M. Marshall. 2000. A survey of current breeding habitats. Chapter 9 In D. Finch and S. Stoleson, eds. *Status, ecology and conservation of the Southwestern willow flycatcher*. USDA Forest Service Gen. Tech. Rep. RMRS-GTR-60. 2000.
- Stalmaster, M.V. 1983. An energetics simulation model for managing wintering bald eagles. *J. Wildl. Manage.* 42(3):506-513.
- Suter, G.W., H. and J.L. Jones. 1981. Criteria for golden eagle, ferruginous hawk, and prairie falcon nest site protection. *J.Raptor Res.* 15:12-18.
- USDI Fish and Wildlife Service. 1995. Recovery plan for the Mexican spotted owl: Vol. I. Albuquerque, New Mexico. 172pp.

USFWS. 2001. Southwestern Willow Flycatcher Recovery Plan. Albuquerque, New Mexico. Prepared by Southwestern willow flycatcher recovery team technical subgroup.

USFWS. 2002. Final Recovery Plan Southwestern Willow Flycatcher. Albuquerque, New Mexico. Prepared by Southwestern willow flycatcher recovery team technical subgroup.

Ward, A.L., L.E. Fornwalt, S.E. Henry, and R.A. Hodorff. 1980. Effects of highway operation practices and facilities on elk, mule deer, and pronghorn antelope. USDT-Federal Highway Administration Report No. FHWA-RD-79-143.

Willey, D. and D. Spotskey. 1997. Unpublished GIS Model for Mexican Spotted Owl breeding habitat. Final Report. Arizona Heritage Program. Phoenix, AZ.

Willey, D. and D. Spotsky. 2000. Field test of a habitat model for Mexican Spotted Owl breeding habitat. Final Report. Arizona Heritage Program. Phoenix, AZ.

Yarmoloy, C., M. Bayer, and V. Geist. 1988. Behavior responses and reproduction of mule deer, *Odocoileus hemionus*, does following experimental harassment with an all-terrain vehicle. Canadian Field-Naturalist 102:425-429.

6.2 List of Acronyms Used in this EA:

ACEC	Areas of Critical Environmental Concern
ATV	All-Terrain Vehicle
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
DR	Decision Record
DWR	Utah Division of Wildlife Resources
EA	Environmental Assessment
EIS	Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
FO	Field Office
FONSI	Finding of No Significant Impact
FWS	U.S. Fish and Wildlife Service
GCNRA	Glen Canyon National Recreation Area
MFO	Monticello Field Office
OHV	Off-Highway Vehicle
NEPA	National Environmental Policy Act
RMP	Resource Management Plan
SRP	Special Recreation Permit
USFS	United States Forest Service
WSA	Wilderness Study Area

APPENDICES :

APPENDIX A:	Interdisciplinary Team Analysis Record
APPENDIX B:	List of BLM General Stipulations
APPENDIX C:	List of Utah BLM General Stipulations
APPENDIX D:	List of Monticello BLM Supplemental Stipulations
APPENDIX E:	Code of Federal Regulations Reference

MAP 1:	Alternative A – Proposed Action Areas of Operation
MAP 2:	Alternative B – No Action: Current Areas of Operation
MAP 3:	Alternative C – Mitigated Proposed Action Areas of Operation
MAP 4:	Areas of Critical Environmental Concern
MAP 5:	Wilderness Study Areas and Areas with Wilderness Characteristics

APPENDIX A: Interdisciplinary Team Analysis Record/Checklist

CRITICAL ELEMENTS				
Determination	Resource	Rationale for Determination	Signature	Date
NI	Air Quality	Dust from vehicles, foot travel and camping will have no measurable impacts on air quality.	Tammy Wallace	02/27/06
PI	Areas of Critical Environmental Concern (ACEC)	ACECs could potentially be impacted by the proposed action. Effects are analyzed in the impacts section of the EA.	Todd Berkenfield	03/31/06
PI	Cultural Resources	Cultural Resources could be potentially impacted. Effects are analyzed in the impacts section of the EA.	Nancy Shearin	02/13/06
NI	Environmental Justice	There are no low-income, minority, or tribal populations within the area to be subjected to the proposed action	Brad Colin	02/08/06
NI	Farmlands (Prime or Unique)	Proposal does not include operation within prime, unique or state sensitive farmland and off-site operation would not affect any such lands.	Nick Sandberg	02/15/06
NI	Floodplains	Because there would be no camping allowed in floodplains, there would be no measurable impacts.	Paul Curtis	04/04/06
NI	Invasive, Non-native Species	Use of Bridger Jack Mesa top could cause the spread of invasive species, which is not easily accessible for treatment. Infestations that arise in other areas would be accessible for treatment by BLM.	Summer Schulz	04/06/06
PI	Native American Religious Concerns	Native American Religious concerns could be impacted. Effects are analyzed in the impacts section of the EA. Notification letters were sent to appropriate tribes on 01/31/06.	Nancy Shearin	02/13/06
NI	Threatened, Endangered or Candidate Plant Species	There are no known T & E candidate plant species in the vicinity of the proposed operating area.	Paul Curtis	04/04/06
PI	Threatened, Endangered or Candidate Animal Species	T & E or candidate animal species could be potentially impacted by the proposed action. The effects are analyzed in the impacts section of the EA.	Tammy Wallace	04/06/06
NI	Wastes (hazardous or solid)	The proposed action along with standard operating procedures provide sufficient mitigation.	Jeff Brown	04/17/06
NI	Water Quality (drinking/ground)	The applicant would be camping away from water sources and is not proposing to use water sources in a way that would cause measurable impacts.	Tammy Wallace	02/27/06
NI	Wetlands/Riparian Zones	Because there would be no camping allowed in Wetlands or Riparian Zones, there would be no measurable impacts.	Paul Curtis	04/04/06
PI	Wild and Scenic Rivers (WSR)	There are WSR eligible segments with the proposed action operating area. The actions will not impact the tentative classifications of the eligible segments, not the river related outstandingly remarkable values, or the free-flowing nature of the rivers and streams.	Todd Berkenfield	03/01/06
PI	Wilderness	There are Wilderness Study Areas within the proposed operating area. The effects are analyzed in the impacts section of the EA.	Brad Colin	02/08/06

APPENDIX A: Interdisciplinary Team Analysis Record (Continued)

OTHER RESOURCES / CONCERNS				
Determination	Resource	Rationale for Determination	Signature	Date
NI	Rangeland Health Standards and Guidelines	The proposed operation would be in accordance with Leave No Trace practices, which are consistent with maintaining Rangeland Health Standards and Guidelines.	Nick Sandberg	02/15/06
NI	Livestock Grazing	Based on the previous 18 years of operation, the proposed action is not expected to affect livestock or grazing operations.	Nick Sandberg	02/15/06
PI	Woodland / Forestry	Woodland/Forestry could potentially be impacted by the proposed action. The effects are analyzed in the impacts section of the EA.	Summer Schulz	03/01/06
PI	Vegetation including Special Status Plant Species other than FWS candidate or listed species	Vegetation could potentially be impacted by the proposed action. The effects are analyzed in the impacts section of the EA. There are no known special status plants in the vicinity of the proposed operating area.	Summer Schulz Paul Curtis	03/01/06 04/06/06
PI	Fish and Wildlife Including Special Status Species other than FWS candidate or listed species e.g. Migratory birds.	Fish and Wildlife could potentially be impacted by the proposed action. The effects are analyzed in the impacts section of the EA.	Tammy Wallace	02/27/06
NI	Soils	Based on the previous 18 years of operation, the proposed action is expected to have only minimal impacts to soils.	Paul Curtis	04/04/06
PI	Recreation	Recreation opportunities and experiences could potentially be impacted by the proposed action. The effects are analyzed in the impacts section of the EA.	Brad Colin	02/08/06
NI	Visual Resources	Because the proposed action does not include any permanent modifications to the landscape, and since groups will attempt to travel and camp out of plain sight, there would be no impacts to visual resources.	Brad Colin	02/08/06
NI	Geology / Mineral Resources/Energy Production	Surface use would not encumber access for exploration or development of potential mineral resources.	Ted McDougall	04/17/06
NI	Paleontology	Paleontology would not be impacted because surface disturbance in the proposed action would not disturb solid matrix.	Nancy Shearin	02/13/06
NI	Lands / Access	By using existing roads, there would be no surface disturbance. Base camp has been previously authorized, and communication sites are not considered to be permanent structures.	Maxine Deeter	04/10/06
NI	Fuels / Fire Management	All fire regulations will be followed under the proposed action.	Doug Paul	04/10/06
PI	Socio-economics	Socioeconomics could potentially be impacted by the proposed action. The effects are analyzed in the impacts section of the EA.	Brad Colin	02/08/06
NP	Wild Horses and Burros	The Monticello BLM Field Office has never had a population of wild horses or burros.	Nick Sandberg	02/15/06
PI	Wilderness characteristics	Wilderness Characteristics could be impacted by the proposed action. The effects are analyzed in the impacts section of the EA.	Brad Colin	02/08/06

APPENDIX A: Interdisciplinary Team Analysis Record (Continued)

Reviewer Title	Signature	Date	Comments
NEPA/Environmental Coordinator	Gary Torres	10/06/06	
Authorized Officer	Gary Torres (Acting)	10/10/06	

APPENDIX B: List of Stipulations

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

COMMERCIAL LAND-BASED SPECIAL RECREATION PERMIT STIPULATIONS

BLM National Terms and Stipulations

a. The permittee shall comply with all Federal, State, and local laws, ordinances, regulations, orders, postings, or written requirements applicable to the area or operations covered by the Special Recreation Permit. The permittee shall ensure that all persons operating under the authorization have obtained all required Federal, State, and local licenses or registrations. The permittee shall make every reasonable effort to ensure compliance with these requirements by all agents of the permittee and by all clients, customers, participants, or spectators under the permittee's supervision.

b. A Special Recreation Permit authorizes special uses of the public lands and related waters as specified in the permit. Should circumstances warrant, the permit may be modified by the BLM at any time, including modification of the amount of use. The authorized officer may suspend or terminate a SRP if necessary to protect public resources, health, safety, the environment, or because of noncompliance with permit stipulations. Failure to comply may result in criminal, civil, and/or administrative actions (probation, suspension, cancellation). Administrative actions by the BLM to suspend or terminate a SRP may be appealed.

c. No value shall be assigned to or claimed for the permit, or for the occupancy or use of Federal lands or related waters granted thereupon. The permit privileges are not to be considered property on which the permittee shall be entitled to earn or receive any return, income, price, or compensation. The use of a permit as collateral is not recognized by the BLM.

d. Unless expressly stated, the SRP does not create an exclusive right of use of an area by the permittee. The permittee shall not interfere with other valid uses of the Federal land by other users. The United States reserves the right to use any part of the area for any purpose.

e. The permittee or permittee's representative may not assign, contract, or sublease any portion of the permit authorization or interest therein, directly or indirectly, voluntarily or involuntarily. However, the authorized officer may approve contracting of equipment or services in advance, if necessary to supplement a permittee's operations. Such contracting should not constitute more than half the required equipment or services for any one trip and the permittee must retain operational control of the permitted activity. If equipment or services are contracted, the permittee shall continue to be responsible for compliance with all stipulations and conditions of the permit.

f. All advertising and representations made to the public and the authorized officer must be accurate. Although the addresses and telephone numbers of the BLM may be included in advertising materials, official agency symbols may not be used. The permittee shall not use advertising that attempts to portray or represent the activities as being conducted by the BLM. The permittee may not portray or represent the permit fee as a special Federal users' tax. The permittee must furnish the authorized officer with any current brochure and price list if requested by the authorized officer.

g. The permittee must assume responsibility for inspecting the permitted area for any existing or new hazardous conditions, e.g., trail and route conditions, abandoned mines, land slides, avalanches, rocks, changing water or weather conditions, falling limbs or trees, submerged objects, hazardous wildlife, or other hazards that present risks for which the permittee assumes responsibility.

h. In the event of default on any mortgage or other indebtedness, such as bankruptcy, creditors shall not succeed to the operating rights or privileges of the permittee's SRP.

i. The permittee cannot, unless specifically authorized, erect, construct, or place any building, structure, or other fixture on public lands. Upon leaving, the lands must be restored as nearly as possible to pre-existing conditions.

j. The permittee, or a representative thereof, must present a copy of the Special Recreation Permit to an

APPENDIX C: BLM Utah Terms and Stipulations

A. General

(1) Permits issued for more than one year are subject to annual validation.

To secure validation the permit holder must:

(a) Have performed satisfactorily under the terms and conditions of this permit and be in conformance with applicable Federal, State, and local laws, ordinances, regulations, orders, postings, and written requirements applicable to the area and operation covered by the permit;

(b) Ensure that all persons operating under the permit have obtained all required Federal, State, and local licenses or registrations;

(c) Have on file, with the office issuing the permit, current insurance identifying the U.S. Government as additional insured as specified in stipulation C;

(d) Have no outstanding, past due, or unpaid billing notices.

(2) Permittees may not leave unattended personal property on public lands administered by the Bureau of Land Management for a period of more than 48 hours without written permission of the authorized officer, with the exception that vehicles may be parked in designated parking areas for up to 14 consecutive days. Unattended personal property is subject to disposition under the Federal Property and Administrative Services Act of 1949 as amended.

(3) The permit only authorizes the use for the activity, the time(s) and in the area(s) specifically described above.

(4) The permittee must maintain on file with the BLM a current and correct list of employees who will be conducting services for the company on public land. Persons providing services under this permit must be an employee of the permittee.

(5) Placement of caches of supplies and food or equipment for future trips is not allowed unless specifically authorized.

(6) The permittee must allow BLM representatives to complete permit checks to determine the validity of the permit, ascertain the group has a copy of the permit, all required equipment, and to orient trip participants about the use of public lands and safety.

B. Financial

(1) The permittee must submit a post use report thirty days after the last use of the permit in a calendar year, or as agreed upon with the field office administering the permit. Alternative reporting arrangements may be established by written agreement with the authorized officer. An extension of this due date may be approved by the issuing office on a case-by-case basis. The report must contain a trip-by-trip log of: trip location, beginning and ending dates of each trip, number of clients, number of guides, and gross receipts for the trip. In reporting gross receipts, the outfitter will report all payments made by the customer, with the only exception being retail sales of durable goods that remain the property of the customer and have an expected service life extending beyond the guided activity. The request for deductions based on pre- and post- trip transportation and lodging expenses and percentage of time on public land, if being claimed, must also be submitted at this time. Requests for transportation and lodging deductions must be accompanied by copies of supporting receipts documenting proof of payment.

(2) The permittee must maintain the following internal accounting records pertaining to the permit:

- (a) W-2 records or a similar record of employment for all employees conducting trips under the permit;
- (b) A record of all financial relationships with booking agents or advertisers;
- (c) A record of all receipts or compensation including payments, gratuities, donations, gifts, bartering, etc., received from any source on trips conducted under the permit;
- (d) A record of all payments made by permittee and claimed as a deduction in the permittee's fee submission.

The BLM retains the right to verify permit compliance from the books, correspondence, memoranda, and other records of the permittee, and from the records pertaining thereto of a proprietary or affiliated company during the period of the permit and for three (3) years thereafter regardless of physical location.

C. Insurance

(1) At a minimum, the permittee shall have in force public liability insurance in the appropriate amount as shown below.

General Guidelines for Minimum Insurance Requirements

SRP Event or Activity	Per Occurrence	Per Annual Aggregate
Low Risk: general non-competitive and non-commercial activities such as group camping, group activities, mounted orienteering, backpacking, or dog trials.	\$300,000	\$600,000
Moderate Risk: whitewater boating, horse endurance rides, OHV events, mountain bike races, rock climbing (with ropes), ultra-light outings, rodeos	\$500,000	\$1,000,000
High Risk: bungee jumping, speed record events, unaided rock climbing	\$1,000,000	\$2,000,000 - \$10,000,000

(2) The policy shall state that the insurance company shall have no right of subornation against the United States of America.

(3) Such insurance must name the United States Government as additional insured and provide for specific coverage of the permittee's contractually assumed obligation to indemnify the United States.

(4) The policy shall stipulate that the authorized officer of the Bureau of Land Management shall be notified 30 days in advance of the termination or modification of the policy.

(5) The permit is not valid unless the permittee maintains a current authenticated certificate of the required insurance on file with the office issuing the permit.

(6) The permittee shall indemnify and hold harmless the United States against any responsibility or liability for damage, death, injury, or loss to persons and property which may occur during the permitted use period or as a result of such use.

(7) The permittee shall furnish a copy of the insurance policy directly to the authorized officer.

(8) The name of the insured on the insurance policy must be the same as the name on the permit. Those permittees holding insurance policies which only insure the permittee and not the permittee's employees must ensure that their employees also have the required insurance in effect, and that a certificate of insurance is furnished to the authorized officer.

(9) For multi-year permits, the insurance policy must be provided the first year, but on each subsequent year the authorized officer may accept a valid certificate of insurance.

(10) The insurance need only be valid during periods of actual use.

D. Marking of Outfitter Vehicles

Every street-legal motor vehicle used to transport clients or equipment shall be marked with at least one sign, decal, or placard on each side of the vehicle. The sign shall at a minimum include the company name and the city and state where the permittee is headquartered. Information must be readable from a distance of 50 feet.

E. Pre-Trip Itinerary

Prior to each trip, the permittee will file a notice of intent in writing with the BLM. The notice of intent must specify the intended dates of the trip, number of clients, number of guides, name of the lead guide and area to be visited, including the location of camps. Alternative reporting arrangements may be specified in writing by the Authorized Officer.

F. Environmental and Resource Protection

All trips must conform to *Leave No Trace* principles.

(1) For all trips, and at base camps with locations served by a motorized vehicle, the permittee must have a toilet system that allows for the carry-out and disposal of solid human body waste via an authorized sewer system that is adequate for the size of the group and length of the trip. Toilets must be accessible for use by passengers and crew at all sites where a company motorized vehicle is present, except in developed locations where public restrooms are provided. In locations remote from a permittee's vehicle, solid human waste must be cat holed in a sunny location in bare soil or carried out, unless otherwise stipulated. Toilet paper must be carried out and not buried or burned.

(2) Cans, rubbish, and other trash shall not be discarded, buried, or dumped on public lands or related waters. Wet garbage such as egg shells, orange peels, leftover solid food, bones, melon rinds, etc., must be carried out. Trash cleanup at campsites and day use areas will include all litter or discarded items including small items such as bottle caps and cigarette butts.

(3) Washing or bathing with soap is not permitted in tributary streams, springs or other natural water sources. Dishwater must be strained prior to dispersal. Dishwater and bathwater may not be dumped within 100 feet of streams, springs, or other natural water sources. Only biodegradable soap may be used.

(4) The permittee will be responsible to ensure that historical, archaeological, cultural, or ecological values are not damaged, destroyed, or removed by any participants on authorized trips. Unless specifically authorized, collection of plants, rocks, fossils, artifacts, shed antlers, animals or parts of animals is prohibited. Permits for such collecting are issued separately outside of this Special Recreation Permit.

(5) The permittee must conduct operations authorized by the permit in accordance with applicable BLM management plans and the permittee's own operating plan submitted to the BLM in support of this permit.

(6) The number of participants on any trip, including guides, may not exceed the number specified in the permittee's operating plan and approved permit. The exception to this requirement is over-the-road bus tours using state and Federal highway and class B county roads.

- (7) No camping is permitted within 300 feet of a known prehistoric or historic site.
- (8) No camping is permitted within 300 feet of a water source other than perennial streams unless prior authorization is received from the authorizing officer.

G. Fires

This permit does not waive any applicable restrictions that may affect the use of camp fires or cooking fires. The following stipulations apply unless specifically waived by the Authorized Officer:

- (1) At sites accessed by the permittee's motor vehicle(s), the permittee must provide their own fuel wood.
- (2) At sites accessed by the permittee's motor vehicle, the permittee must use a fire pan to contain the fires, ash, and charcoal. Charcoal and ash from the fire pan must be hauled out.
- (3) Gathering wood from standing trees, live or dead, is prohibited.
- (4) Use of dead and down wood is permitted only at backcountry sites not accessed by the permittee's motor vehicle. In such cases, if a fire pan is not used, burn all wood to ash and naturalize the area before leaving.
- (5) Scatter fuel wood piles before leaving the site.
- (6) Comply with all fire restrictions and orders.

H. Safety and Equipment

- (1) The permittee shall provide the equipment necessary to serve the public in a safe manner. The permittee will ensure that trips are conducted in compliance with all laws and regulations relating to vehicle operations, land use restrictions, food handling, and any other applicable regulations.
- (2) Every person serving as a guide on public land must at a minimum be trained and currently certified in Basic First Aid and Cardio-pulmonary Resuscitation (CPR). A current copy of the certification must be kept on file with the BLM.
 - (a) On each trip at least one guide must be trained and currently certified in Advanced First Aid, First Responder, Wilderness First Responder, or an equivalent. A current copy of the certification must be kept on file with the BLM.
- (3) The following equipment must be carried on all commercial trips:
 - (a) A first aid kit adequate to accommodate each activity, group, or subgroup will be carried on all trips.
 - (b) Adequate repair kits and spare supplies appropriate for the trip and activity.
- (4) The following procedures must be followed on all commercial trips:
 - (a) Unless specifically authorized in the permit, discharge of firearms is allowed only for legal pursuit of game animals by a licensed hunter.
 - (b) Use of explosives and fireworks is prohibited.

SUPPLEMENTAL STIPULATIONS FOR OUTFITTERS USING RIDING OR PACKSTOCK

- (1) Livestock use must be specifically provided for in the permit and operating plan.
- (2) All riding and pack animals must be fed certified weed-free feed for 48 hours in advance of and for the duration of the trip on public lands.
- (3) Riding and pack animals may not be tied for more than one hour to live trees.
- (4) Livestock shall not be tied, hobbled, or picketed for more than one hour within 300 feet of a natural water source other than perennial streams.
- (5) Permittees may not clean out stock trucks or trailers onto public land.
- (6) All animals will be under control en route and in camp to protect wildlife, other livestock, and range forage.
- (7) Corrals located on public lands may not be available for public or permittee use. Prior authorization is required for the use of such corrals.
- (8) Lost or dead animals shall be reported within 48 hours of end of trip. An appropriate response will be determined by the Authorized Officer.

SUPPLEMENTAL STIPULATIONS FOR PERMITTEES USING OFF HIGHWAY VEHICLES AND MOUNTAIN BIKES

- (1) OHV and mountain bike use must be specifically provided for in the permit and operating plan.
- (2) Only routes specifically approved in the permittee's operating plan may be utilized.
- (3) Permittee will be familiar and comply with State of Utah OHV laws. All trips and trip participants must follow state regulations and manufacturer's recommendations regarding operations.
- (4) Permittee must be familiar and comply with BLM's OHV designations whether posted on the ground or not.
- (5) Permittees will operate in accordance with 43 CFR 8340 concerning OHV use on public land.
- (6) OHV operators must yield to non-motorized users. Mountain bikers must yield to pedestrians and riding or pack animals.
- (7) OHV operators shall not intentionally chase or harass wildlife.
- (8) The permittee shall be responsible for clean-up and remediation in the event of accident or mechanical failure resulting in the spillage of fuels, lubricants, coolants, hydraulic fluids, or other petroleum-based or synthetic organic compounds.

APPENDIX D: List of Supplemental Monticello BLM Field Office Stipulations

General Stipulations

1. The permittee will take precautions to protect natural values, cultural or historic objects, aesthetic values, and any improvement on public land involved. Any government owned structures, property, land or resources harmed or damaged by the permittee or his clients shall be reconstructed, repaired, rehabilitated, and restored as may be required by the BLM to at least equal condition immediately prior to such damage or destruction. Permittee further shall abate any condition existing which may cause harm or damage to any person, structure, property, stream, or wildlife.
2. The permittee will take all reasonable measures to prevent and discourage vandalism or harassment of wildlife, and when necessary, call in the appropriate law enforcement agency.
3. All vehicle use will be in accordance with State law and BLM off-highway vehicle (OHV) designations. No off-route travel would be permitted.
4. Permittee will be responsible for any wildfires caused by the permittee's party and will report all wildfires to the nearest BLM Field Office.
5. Natural disasters and uncontrollable acts present risk which the permittee assumes. The permittee has the responsibility of inspecting the camp site and immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions and locating his camp site to avoid such hazard.
6. The permittee agrees to assume responsibility for public safety and health during any phase of the operation, including first aid, retrieval and evacuation activities including costs.
7. All employees and clients will be informed of permit stipulations.
8. All animals will be kept under control. When outside of vehicles, all domestic animals must be kept on a leash. Domestic animals must remain in the vehicle in the presence of wildlife. Harassing of wildlife and/or livestock is not allowed.
9. Inadvertent surface discoveries of fossil materials should be left undisturbed.
10. Gates will be left as found.
11. Any additional use areas or winter/base camps will require additional approval from BLM.

Wildlife Stipulations

12. The permittee will be responsible for ensuring that all employees will be educated about the threatened and endangered species that could be present in the activity area. This education will include the potential penalties for taking a species listed under the Endangered Species Act.
13. Observe desert bighorn sheep, deer, and elk from a distance. No vehicle or foot pursuit allowed. No excessive noise.
14. In desert bighorn lambing and rutting areas, noise will be kept to a minimum and there will be no camping within 200 feet of the talus slopes.

15. Groups must avoid disturbing raptors year-round, especially during nesting seasons (March 1-August 31). There would be no stopping or camping within ¼ mile of active raptor nests (indicated by fresh excrement and/or defensive bird behavior). An active nest site should be reported to the MFO.
16. There will be no vehicle or foot pursuit of any wildlife. No excessive noise or honking of vehicle horns to harass wildlife.
17. If Mexican spotted owl nest site is found, there will be no camping within 0.5 miles of the nest site from March 1 to August 31.
18. If Southwestern willow flycatcher breeding/nesting territories are identified, hiking and camping shall be suspended within 0.25 miles of these locations from May 1 to August 15.

Riparian/Water Quality Conservation Stipulations

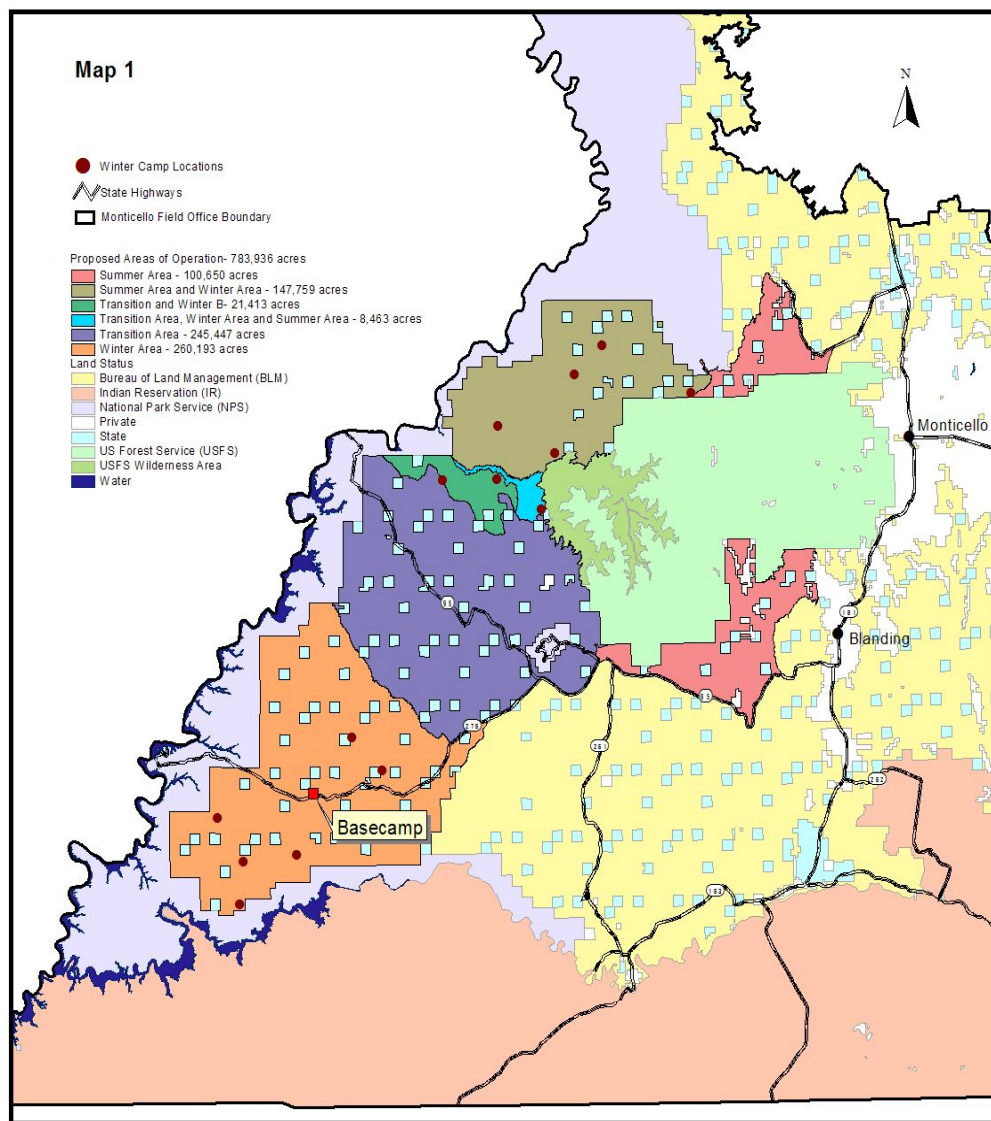
25. Vehicles must avoid damage to riparian vegetation and streambanks. No route widening is permitted.
26. While hiking, avoid using the same area to cross a riparian area to prevent soil compaction and Loss of vegetation.

Cultural Resource Stipulations

27. No flint knapping in the field because it creates artificial cultural sites and if done within a site location it may obscure the archaeological lithic debitage (manufacture of stone tools) to the extent that professional analysis of prehistoric activity at the site is no longer analyzable from the material type debitage remains (Andrefsky William Jr., 2001);
28. The practice of "gifting" at cultural resource locations i.e. leaving objects not originally left there by the prehistoric inhabitants at the site or taking on the surface and arranging them in "museum display" piles is yet another practice of site visitors that obscures the archaeological record for professional analysis and is not to be done in the field;

Assessment of Adverse Effects

- (a) *Apply criteria of adverse effect.* In consultation with the SHPO/THPO any Indian tribe or Native Hawaiian organization that attached religious and cultural significance to identified historic properties, the agency official shall apply the criteria of adverse effect to historic properties within the Area of Potential Effects. The agency official shall consider any views concerning such effects which have been provided by consulting parties and the public.
- (1) *Criteria of Adverse Effect.* An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register (of Historic Places) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.
- (b) *Finding of No Adverse Effect.* The agency official, in consultation with the SHPO/THPO, may propose a finding of no adverse effect when the undertaking's effects do not meet the criteria of paragraph (a) (1) of this section **or the undertaking is modified or conditions are imposed**, such as the subsequent review of plans for rehabilitation by the SHPO/THPO to ensure consistency with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines, to avoid adverse effects.

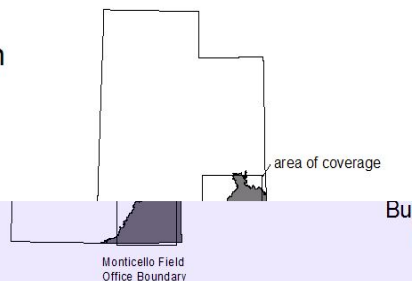


Alternative A - Proposed Areas of Operation



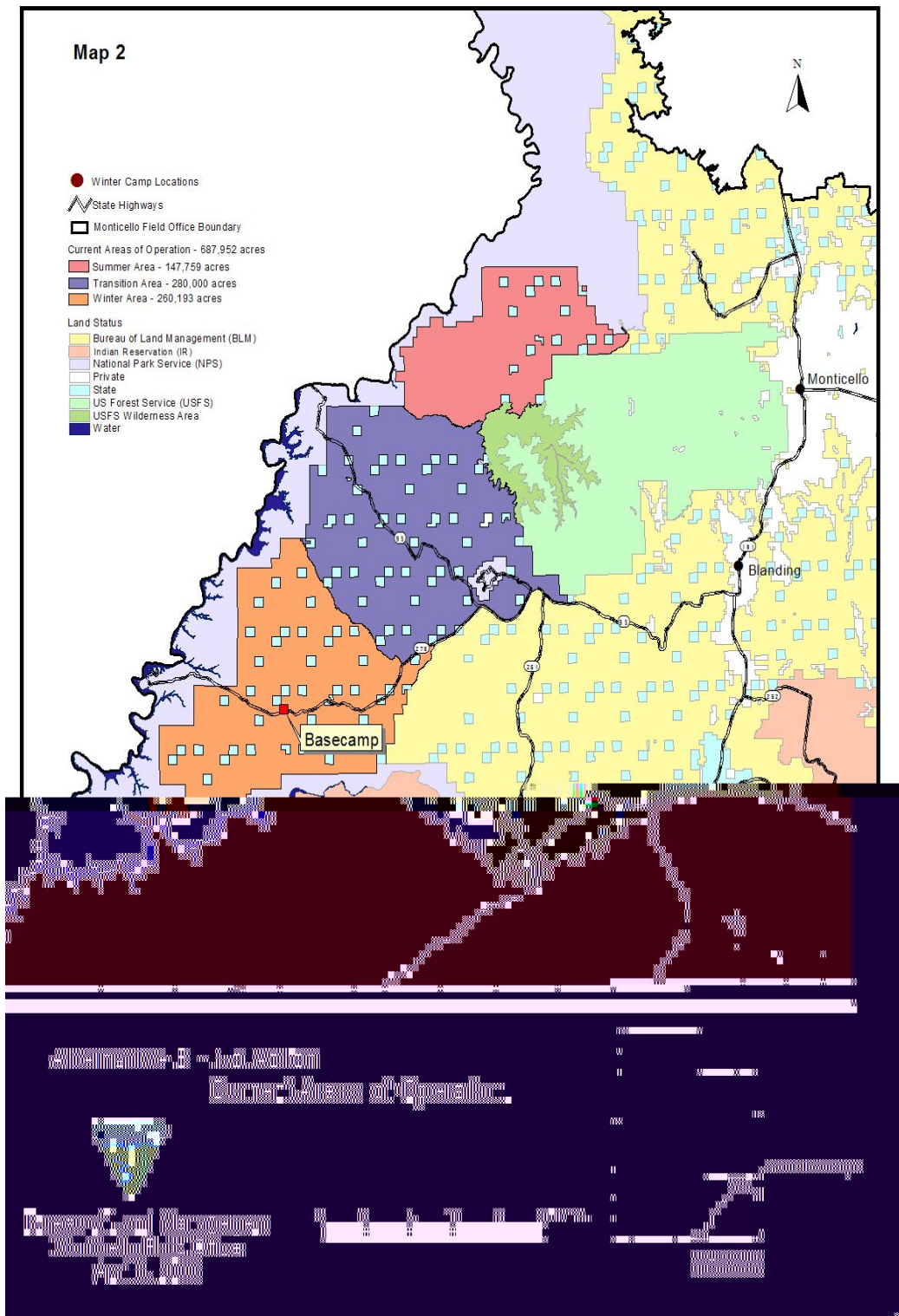
Bureau of Land Management
Monticello Field Office
April 6, 2006

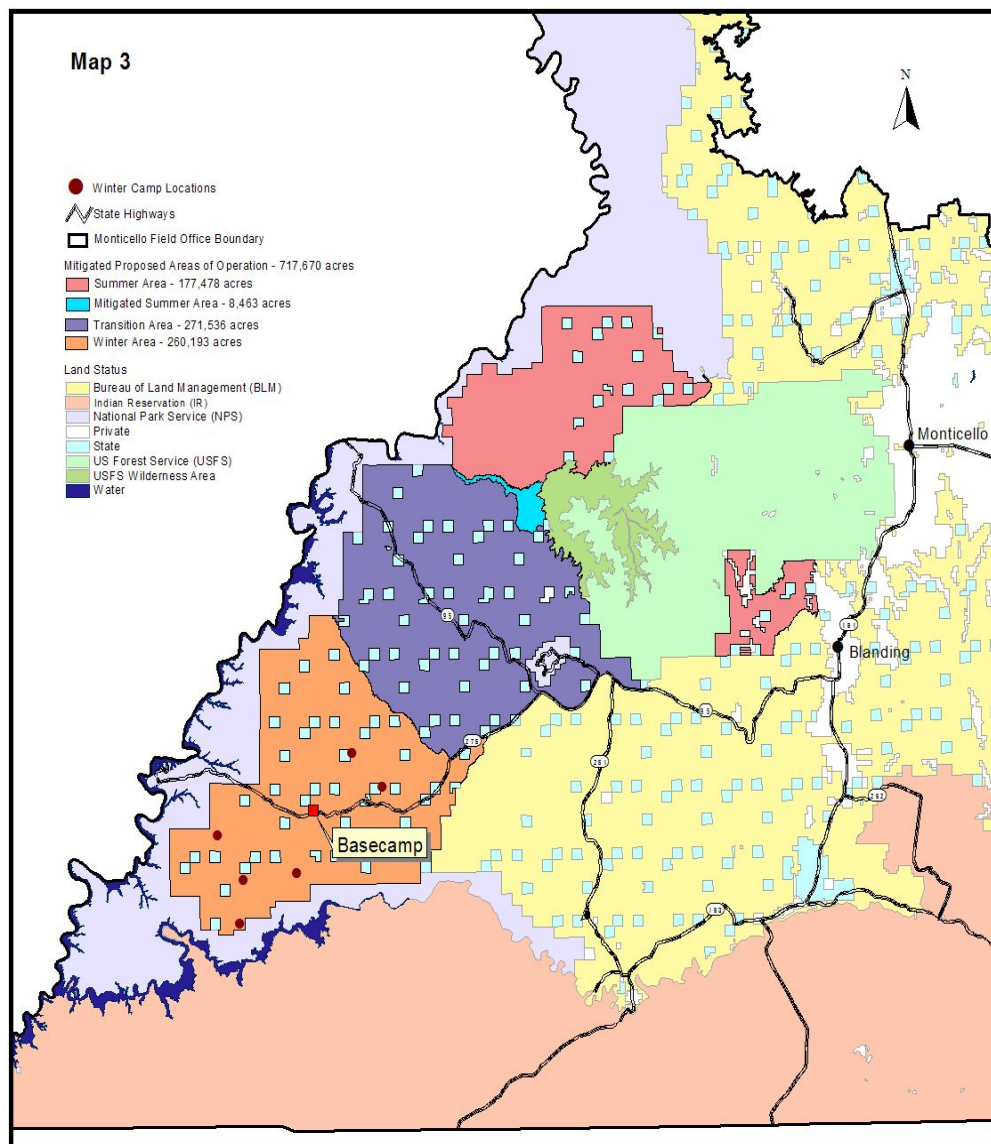
0 5 10 15 20 Miles



Map 2

- Winter Camp Locations
- State Highways
- ▭ Monticello Field Office Boundary
- Current Areas of Operation - 687,952 acres
 - Summer Area - 147,759 acres
 - Transition Area - 280,000 acres
 - Winter Area - 260,193 acres
- Land Status
 - Bureau of Land Management (BLM)
 - Indian Reservation (IR)
 - National Park Service (NPS)
 - Private
 - State
 - US Forest Service (USFS)
 - USFS Wilderness Area
 - Water



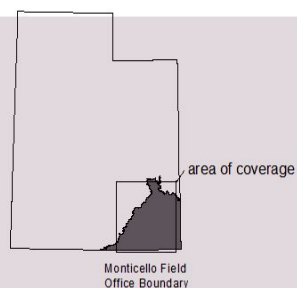


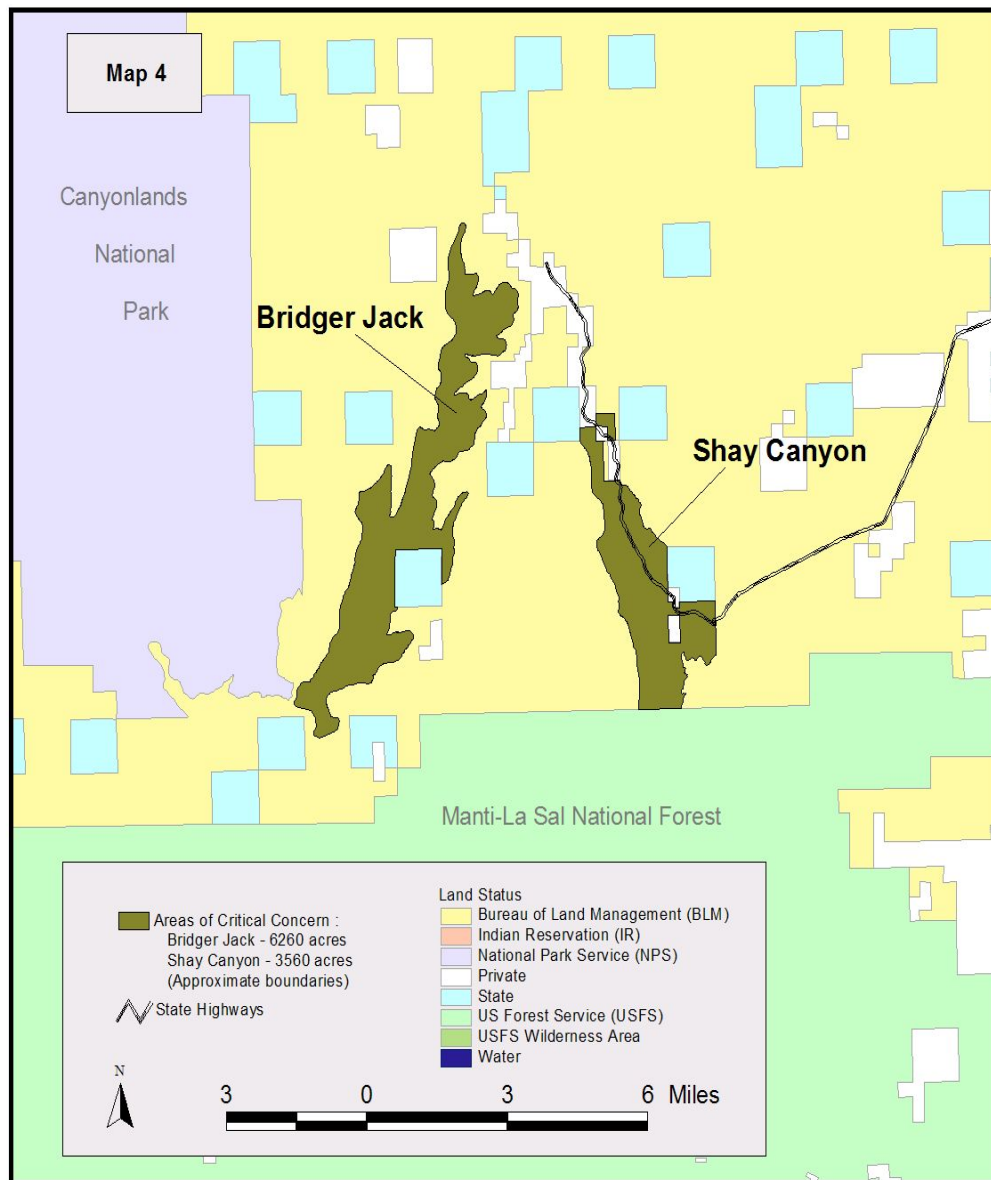
Alternative C - Mitigated Proposed Areas Of Operation



Bureau of Land Management
 Monticello Field Office
 April 6, 2006

5 0 5 10 15 20 Miles

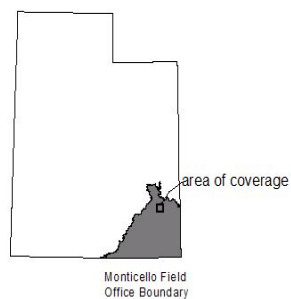




Areas of Critical Environmental Concern in the Proposed Operating Area

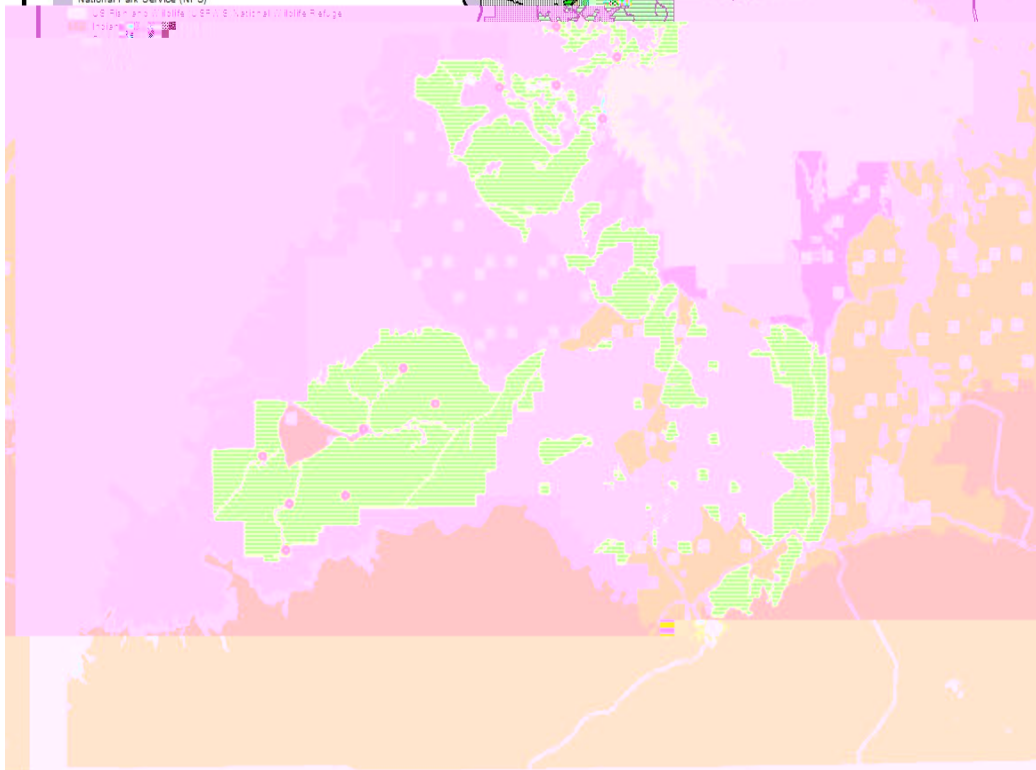


Bureau of Land Management
Monticello Field Office
April 6, 2006



Map 5

- Winter Camp Locations
- Areas Inventoried For Wilderness Character- 1999
 - ▨ No Wilderness Character
 - ▨ Wilderness Character
- ▨ WSAs
- ▨ State Highways
- ▨ Monticello Field Office Boundary
- Proposed Areas of Operation- 783,936 acres
 - Summer A- 68,541 acres
 - Summer B- 32,109 acres
 - Summer B and Winter B- 147,759 acres
 - Transition and Winter B- 21,413 acres
 - Transition and Winter B and Summer B- 8,463 acres
 - Transition- 245,447 acres
 - Winter A- 200,193 acres
- Land Status
 - Bureau of Land Management (BLM)
 - US Forest Service (USFS)
 - USFS Wilderness Area
 - National Park Service (NPS)



US Fish and Wildlife Service, U.S. National Wildlife Refuge
 and Monticello Field Office, Monticello, New Mexico



U.S. National Wildlife Refuge
 Monticello Field Office
 5000 Highway 200, Monticello, NM 87701

U.S. National Wildlife Refuge

U.S. National Wildlife Refuge